Pronunciation of L2 English in Afrikaans speakers who have relocated to Aotearoa-New Zealand

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Abstract

An ever greater number of South Africans are relocating to New Zealand and now comprise the fifth largest group of migrants in the country. Among this group, there are first language (L1) Afrikaans speakers who bring with them qualifications, skills, and more importantly, their distinct second-language English. It appears that these Afrikaans speakers quickly adapt to the pronunciation of New Zealand English (NZE).

The present study seeks to shed light on changes which occur in the pronunciation of Afrikaans-speaking South Africans living in New Zealand. The results of the present study show that there is a difference in the L2 English pronunciation between Afrikaans speakers in New Zealand and their counterparts in South Africa.

The L2 English pronunciation of Afrikaners in New Zealand is shown generally to approximate towards the articulation of NZE. Several factors appeared to influence differences in pronunciation, for example gender, identity change, having a NZE-speaking partner, and exposure to the L2. Afrikaans speakers in New Zealand seem to identify more readily as Kiwis than with their South African English counterparts.

The present study concludes with the suggestion that, along with other factors, a change in identity apparently facilitates a change in pronunciation toward NZE pronunciation. The findings provide a novel perspective on the Afrikaans language in New Zealand, and offer a new perspective on the influence of identity on second language acquisition.

Key words: Afrikaans, Afrikaans English, L2, New Zealand English, second language acquisition, SLA, pronunciation, identity, dialect change, SDA
Acknowledgements

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To them, I dedicate this thesis.
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### Abbreviations and Conventions

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<thead>
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<th>Description</th>
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<tbody>
<tr>
<td>Afr</td>
<td>Afrikaans (language)</td>
</tr>
<tr>
<td>AfrE</td>
<td>Afrikaans English</td>
</tr>
<tr>
<td>ANC</td>
<td>African National Congress (South African political party)</td>
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<tr>
<td>ANZ</td>
<td>Afrikaans speakers in New Zealand</td>
</tr>
<tr>
<td>AOA</td>
<td>Age on arrival</td>
</tr>
<tr>
<td>CA</td>
<td>Contrastive Analysis</td>
</tr>
<tr>
<td>CPT</td>
<td>Critical Period Theory</td>
</tr>
<tr>
<td>D1</td>
<td>First Dialect</td>
</tr>
<tr>
<td>D2</td>
<td>Second Dialect</td>
</tr>
<tr>
<td>EV</td>
<td>Ethnolinguistic Vitality</td>
</tr>
<tr>
<td>F1</td>
<td>First formant</td>
</tr>
<tr>
<td>F2</td>
<td>Second formant</td>
</tr>
<tr>
<td>FANZ</td>
<td>Female Afrikaans speaker in New Zealand</td>
</tr>
<tr>
<td>FASA</td>
<td>Female Afrikaans speaker in South Africa</td>
</tr>
<tr>
<td>FNZE</td>
<td>Female New Zealand English speaker</td>
</tr>
<tr>
<td>FSAENZ</td>
<td>Female South African English speaker in New Zealand</td>
</tr>
<tr>
<td>FSAESA</td>
<td>Female South African English speaker in South Africa</td>
</tr>
<tr>
<td>L1</td>
<td>First language</td>
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<td>L2</td>
<td>Second language</td>
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<tr>
<td>LMER</td>
<td>Linear Mixed Effects Regression Analysis</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>---------</td>
<td>-------------</td>
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<tr>
<td>LOR</td>
<td>Length of residence</td>
</tr>
<tr>
<td>MANZ</td>
<td>Male Afrikaans speaker in New Zealand</td>
</tr>
<tr>
<td>MASA</td>
<td>Male Afrikaans speaker in South Africa</td>
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<td>MMR</td>
<td>Mix Methods Research</td>
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<td>MNZE</td>
<td>Male New Zealand English speaker</td>
</tr>
<tr>
<td>MSAENZ</td>
<td>Male South African English speaker in New Zealand</td>
</tr>
<tr>
<td>MSAESA</td>
<td>Male South African English speaker in South Africa</td>
</tr>
<tr>
<td>NP</td>
<td>Nationalist Party (Historical South African political party)</td>
</tr>
<tr>
<td>NZ</td>
<td>New Zealand</td>
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<td>NZE</td>
<td>New Zealand English</td>
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<tr>
<td>QUAL</td>
<td>Qualitative Strand</td>
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<td>QUAN</td>
<td>Quantitative Strand</td>
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<tr>
<td>SA</td>
<td>South Africa</td>
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<tr>
<td>SAE</td>
<td>South African English</td>
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<tr>
<td>SAT</td>
<td>Speech Accommodation Theory</td>
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<tr>
<td>SDA</td>
<td>Second Dialect Acquisition</td>
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<td>SLA</td>
<td>Second Language Acquisition</td>
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<tr>
<td>SIT</td>
<td>Social Identity Theory</td>
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<td>TL</td>
<td>Target Language</td>
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In this thesis, forward slashes are used to indicate the sounds used throughout, e.g. /p/ and /h/. The use of singular quotation marks indicates reference to the orthography.
Chapter 1

Introduction

The accent of our native country dwells in the heart and mind as well as on the tongue

François de la Rochefoucauld (1613-1680)

1.0 Overview

Pronunciation is so much more than simply an individual’s way to produce the language he speaks; pronunciation is inextricably linked to geographical location, social class, nationality and other aspects of identity. Often, within a few moments of meeting for the first time, individuals can identify where their interlocutors grew up, where they spent a significant amount of time, and occasionally with what social group they identify. Interlocutors engaging with speakers of another first language will often be able to discern from their ‘foreign accent’ the country in which they spent their formative years. Speakers who have learnt a foreign language will often, but not always, experience some form of transfer from the phonological system of the first language to the system of the second language. Linguists (e.g. Major, 1998; Oyama, 1976; Selinker, 1972) have conducted studies on the phenomenon of foreign language accent and several theories have been suggested to explain its presence in the speech of second- or foreign-language learners and speakers.
Historically, researchers (Beebe & Giles, 1984; Flege, Frieda, & Nozawa, 1997; Flege, Munro, & MacKay, 1995; Marx, 2002) have looked at a number of factors involved in successful second-language acquisition (SLA). Gender of the learner is one of these factors, as is the amount of time a learner has received explicit classroom instruction on the language.

Other studies (Dörnyei, 2009; Lybeck, 2002; Zuengler, 1988) have considered different variables which are concerned more with the learner and their social contexts, such as cultural identity, ethnicity and social networks. Such sociolinguistic variables are important to understand more completely the complex nature of how external factors can influence the way the learners produce their language. Internal factors have also been considered (e.g. personality factors and aptitude) (Dörnyei, 2005), but these fall outside of the focus of this study.

The present study attempts to shed light on how the second language (L2) pronunciation of a group of migrants differs post-relocation to a new linguistic environment from the pronunciation of speakers in the same discourse communities in their country of origin, and to examine whether, and if so how, their identity might have changed in their new environment and whether this might be a factor in such a change in pronunciation.

1.1 Background of the Study

Pronunciation, the way in which speakers produce the sounds of their language(s), is a complicated process, denoting an individual’s sense of self and identification with others in a specific group. In the field of SLA, foreign accent is produced by a second-language speaker’s adaptation of the L2 phonological system, towards which several factors including first language (L1) transfer could contribute.
Such factors and their effects result in pronunciation which differs from that of a first-language speaker.

In New Zealand, there are an increasing number of Afrikaans-speaking South African immigrants who have left South Africa for personal reasons. This increase prompted the researcher to investigate their L2 English pronunciation and their perception of their self-identity post-relocation. Interest in the present study grew with the researcher’s interaction with Afrikaans-speaking South Africans who had migrated to New Zealand. The researcher’s own observations and other anecdotal evidence suggested that these Afrikaans-speaking adults lose their identifiable, fossilised L2 (Afrikaans) accents, and seem, relatively quickly in some cases, to adopt many features of the New Zealand English accent. In contrast, their South African English-speaking (Anglophone)\(^\text{1}\) counterparts who have also relocated to New Zealand seem to maintain their South African accent, with little evidence of adopting the New Zealand accent.

Afrikaans speakers are a significant migrant group within the New Zealand community, often because they arrive with strong tertiary qualifications and extensive skills in a variety of work environments. Prior to 1994 and the ANC (African National Congress) government transition, there were limited numbers of South Africans in New Zealand. After this date, numbers of South African migrants increased dramatically in New Zealand, from 3,996 individuals in 1981 to 26,061 people in 2001 and 41,676 expats in 2006. A recent census saw 54,276 individuals reporting they were of South African birth (Statistics NZ, 2013), placing South Africans as the fifth greatest migrant group by number in New Zealand.

\(^\text{1}\) English-speaking South African refers to Anglophones who were born in, and have grown up in, South Africa. English-speaking in this sense, a commonly used term in South Africa, solely indicates the individual’s first language.
The participants in this study, English and Afrikaans speakers located in both New Zealand and South Africa, provide a relatively novel focus for second language pronunciation research. Previous studies such as those of Lybeck (2002), Schumann (1978b), Schmidt (1983) and Beebe and Giles (1984) which provide various accounts of the relationship between second-language acquisition as a whole, pronunciation, acculturation, and other social factors, have looked at second-language learners who are either beginners or false beginners in their TL. This study considers L2 English speakers who have been speaking English since childhood and maintain a strongly Afrikaans-influenced pronunciation of English while living in South Africa, yet this same fossilised pronunciation appears to change post-relocation in New Zealand.

1.2 Significance of the Study

This study considers five cohorts of people who, as described above, already have a high level of English and a defined L2 English pronunciation. The intention of this study is to shed light on a particular migrant group, Afrikaans speakers in New Zealand, and simultaneously fill a research gap. This study provides theoretical implications which support the belief that different sociolinguistic factors, and the continuous reconstruction of self-identity, can influence the way in which an individual acquires a second language and dialect.

Such is the strength of the markedness of Afrikaans English that scholars such as Watermeyer (1996), Bowerman (2004) and others call it a separate second language English dialect. It has also, in the past, been described as a broad variety on the continuum of South African English (SAE) (c.f. Lanham, 1967; 1962). In South Africa, the ANZ participants in this study would have grown up with Afrikaans-accented
English, and continued to use their fossilised interlanguage for years (in fact, on a lifelong basis) with a degree of pride and no inclination to adopt the pronunciation of English-speaking South Africans. This phenomenon is observed in the English of Afrikaans speakers who have spoken English as a second language since early childhood, and who are extremely fluent in English. These speakers, having come through the South African education system, would have learnt English for at least ten years at school and, even if they do not speak it daily, they would be exposed to L1 English via media on a daily basis.

Considering this information, the research questions which this thesis seeks to answer are:

1. After relocation to New Zealand, does the L2 English pronunciation of L1 Afrikaans speakers approximate towards L1 NZE pronunciation?

2. If there is a difference, what factors might motivate a change in pronunciation?

3. Is the self-identity of the L1 Afrikaans speaker a factor in these differences?

The present study aims to fill a gap in the literature on the topic of second-language pronunciation. It considers recorded interviews and a reading passage from individuals in two groups of Afrikaans-speaking people, one cohort currently residing in South Africa and another cohort which has moved to New Zealand, to determine whether differences have developed in their L2 English pronunciation as compared to the pronunciation of their counterparts still resident in South Africa. Norton’s (1997) view of identity will be used in this study to link the post-relocation experience of identity construction of the Afrikaans speakers in New Zealand. Identity, as held by
Norton (1997), is a complex and fluid construction which develops over time and is relevant to the New Zealand migrant context. According to Norton, an individual constructs, or reconstructs, their identity with reference to three important factors: their past experiences (in this case, their life in South Africa); their current situation (how they are adjusting to their new country); and their future opportunities (how they see themselves and their cultural capital in New Zealand). Throughout this thesis, concepts are explained to illustrate the importance of this definition of identity to the changing identities of the Afrikaans-migrants in New Zealand.

By examining a snapshot in time of the pronunciation of different cohorts of English and Afrikaans speakers in South Africa and New Zealand and English-speaking New Zealanders, this study will provide insights into the complex link between change of identity and pronunciation of a selection of sounds post-relocation to New Zealand. It will investigate whether acculturating to New Zealand ways of life and taking on a Kiwi identity facilitates an approximation towards a New Zealand English pronunciation of the L2 English of the Afrikaans speakers in New Zealand.
1.3 Layout of the Thesis

This thesis opens with an introduction to the dialects of English and Afrikaans central to this study. Chapter two introduces New Zealand English, South African English and Afrikaans and outlines their individual development. This is to provide understanding of the origin of the variations between the dialects. The chapter closes with an outline exploring the development of the Afrikaans identity in South Africa through three main phases.

Chapters three and four introduce the phonological variables considered in the quantitative section of the study. Chapter three is concerned with the selected consonants /p/, /t/, /k/, /r/, and /h/. The articulations of each consonant are given for each dialect. Chapter four includes descriptions of the vowels central to the quantitative study. Wells’s (1982) lexical sets are used to label the different vowels analysed in this study, namely, KIT, DRESS, TRAP, LOT, START, and GOOSE. Charts provide opportunities for comparison between the dialects.

Literature on the sociolinguistic factors relevant to the thesis is introduced in chapter five. The concepts of interlanguage and fossilisation, pronunciation and motivation, and second dialect acquisition, as well as having an L1 NZE-speaking partner are considered. Finally, the chapter concludes with a review of the literature on identity, focussing on social identity theory, investment, social categories and ethnolinguistic vitality and language egos.

The methodology of the study and the processes behind collecting the quantitative and qualitative data are explained in chapter six. The five cohorts of participants are introduced and their places of origin and current places of residence are indicated. This thesis adheres to the paradigms of mixed methods research and
constructivism to develop the analyses and subsequent discussion. This is discussed and its relevance to the current study clarified.

Chapters seven and eight present the quantitative results and qualitative findings. The quantitative results are separated by consonants and vowels, and significance is presented after the linear and logistic mixed effects regression analyses were completed. The quantitative results indicate that there is an approximation of the L2 English pronunciation of the ANZ participants towards that of NZE compared with their ASA counterparts. This new pronunciation appears to approximate towards the pronunciation of the NZE speakers. The qualitative findings are presented in terms of overall themes which were identified by an analysis of the data, namely: reasons for moving, consequences of moving, self-identity, and language change. The qualitative findings suggest that changes in identity for the ANZ participants are influenced by a number of factors, such as speech community, historical connections to South African English, having children in New Zealand, having a New Zealand English-speaking partner, and by positive attitudes towards New Zealand and its citizens.

The discussion, chapter nine, links the qualitative findings, quantitative results and relevant literature. This chapter considers the research questions and it is suggested that a shift in identity as a result of a change in location (country of residence) probably brings about changes in the pronunciation in the Afrikaans speakers in New Zealand.

Finally, chapter ten provides a brief summary of the research and the findings in this study. The section on limitations deals with unexpected issues and their possible solutions. This is followed by suggestions for future research where is it suggested, amongst other things, that different migrant groups be considered for similar studies.
Chapter 2

Introduction to the Literature Review and the Dialects

2.0 Overview

This chapter begins the literature review and introduces the languages involved in this thesis. It will focus firstly on explaining the layout of the following chapters contained within the literature review. Secondly, it provides an introduction to the important facets in the development of the languages and varieties used in this thesis. These are New Zealand English (NZE), South African English (SAE), Afrikaans (Afr) and Afrikaans English (AfrE). Emphasis is placed on the development of Afrikaans identity and language as these participants are central to this thesis. Afrikaners have strong connections to their place of birth and their language is a crucial part of their identity, and this is important to later explain the influence of changing their identity and what each individual may have given up. Where there are different sociolects within a dialect, these sociolects will be referred to using the terms used most commonly by current researchers (e.g. Branford, 1994; Lass, 2002), e.g. Cultivated SAE, General SAE and Broad SAE. The chapter concludes with an outline of the emergence of the Afrikaans people and the struggle for their separate identity.
2.1 New Zealand English

New Zealand is a historian’s paradise; a laboratory whose isolation, size and recency is an advantage, in which the grand themes of world history is often played out more rapidly, more separately, and therefore more discernibly, than elsewhere.

James Belich, *Making Peoples*

Following the colonisation of Australia in 1788, New Zealand became more accessible to immigrating Europeans although it was considered an ‘ungoverned and lawless offshoot’ (Gordon & Deverson, 1998) of New South Wales and any activities related to migrants revolved around commercial activities in Sydney, e.g. whaling and sealing. A British Resident Minister was not dispatched from Sydney until 1833 in response to growing unrest and lack of general law, albeit, given little power and respect, he was all but ignored. Britain finally took control of New Zealand upon the signing of *Te Tiriti o Waitangi* (The Treaty of Waitangi) in February 1840, an important historical moment for which Captain William Hobson was sent. The Treaty still has major political influence to this day.

The British annexation of New Zealand, following the signing of the Treaty of Waitangi in 1840, brought waves of immigrants who have influenced the evolution of New Zealand English (see Bauer & Warren, 2004; Britain, 2008; Trudgill, Gordon, Lewis, & Maclagan, 2000). The first of successive immigration waves occurred between 1840 and 1860 and saw planned establishment of towns by various organisations such as The New Zealand Company. Nelson and Wellington were settled by populations from the south-east of England, including London. Taranaki was settled by the Plymouth Company bringing in people from southern England, while Otago was
established by the Scottish free-church. The Scottish influence on the Southern accent in New Zealand is still evident. The second wave occurred following the discovery of gold in the South Island. This brought many immigrants from Australia to Otago and the West Coast over the period 1860-1870. Lastly, planned immigration saw the continuation of settlement of New Zealand from 1870 onwards. These settlers came mainly from the south of England, especially Cornwall. Early census figures show the areas from which different English-speaking settlers arrived during the period up to 1881 (McKinnon, 1997):

<table>
<thead>
<tr>
<th>Country</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>49%</td>
</tr>
<tr>
<td>Scotland</td>
<td>22%</td>
</tr>
<tr>
<td>Ireland</td>
<td>20%</td>
</tr>
<tr>
<td>Australia</td>
<td>7%</td>
</tr>
<tr>
<td>Wales</td>
<td>1%</td>
</tr>
<tr>
<td>Nth. America</td>
<td>1%</td>
</tr>
</tbody>
</table>

Table 1 Proportions of migrants by country to New Zealand pre-1881

The census figures for 1881 above give some insight into the broad range of dialects that formed the basis from which NZE would eventually develop. For a comprehensive discussion of dialect mixture and formation in NZE, see Trudgill et al. (2000). It was soon after this 1881 census that Professor Arnold Wall stepped off the boat in Christchurch and commented that, of the people he employed, many came from Yorkshire, Devonshire, Oxfordshire, Wales, Scotland and Australia [all of whom were
“speaking their native dialect in its purity” (Gordon, 2009, p. 33)]. According to Gordon, an early version of NZE was spoken in towns and villages as early as 1870, although it was not until the 1900s that it was recognised as such. Its reception, upon being recognised, was anything but warm.

Margaret Batterham, an Australian linguist who conducted her doctorate on early NZE, recorded many scathing opinions of the accent; it was “vile, muddy and a blot on our national life”; it was “an incurable disease, evil sounding, corrupt, slovenly”, and the list goes on (1996). One commentator, as cited in Gordon (2009, p. 34), went so far as to accuse NZE of being responsible for “minor throat and nasal disorders”.

A few stalwart supporters of ‘standard English’ believed that they could, with explicit instruction and practice, change the way in which the children of the country were speaking. Professor Arnold Wall spearheaded this movement, publishing a book to assist individuals who wished to speak “correct” English. As he said:

[t]his book is designed for use by residents of New Zealand who wish to speak ‘good English’ or ‘standard English’, as spoken by the ‘best speakers’ in the old land; it is not intended for those who wish to develop a new dialect for this country…

(Wall, 1939, p. 1)

However, regardless of the effort put in by the guardians of standard British English, there was no changing the evolution of this new dialect which has become standard New Zealand English. According to Gordon et al. (2004), there were a number of factors which could have attributed to the current phonological system of NZE. Trudgill (2004) suggests that it was simply that the majority of immigrants during the
formative years of NZE were English rather than Scottish, Irish or Australian, that determined that NZE would evolve from the English of England.

These days, NZE is recognisable by its distinctive vowel system. New Zealanders are recognised by their fronted, close vowels, centralised KIT vowels and flat START vowels.
2.2 South African English

The introduction and concurrent development of English in South Africa occurs alongside a history fraught with social upheaval and turmoil from the 19th century. This section will explain the introduction of the English language to South Africa, its origins and development into a distinctive dialect and how the importance of English has changed over time.

English first arrived in South Africa in 1795 when, in response to the French invasion in the Netherlands and the resultant threat to trade in the East, Britain acted to protect its interests in India by securing the Cape of Good Hope - the present day Cape Town area (Lass, 1995). Most works examining the early stages of colonialism and the introduction of English to the Cape mention that the British took the Cape by force (Bowerman, 2004; Kamwangamalu, 2002; Lass, 1987; Mesthrie, 2002). Contradicting this view, Rissik writes that, “Britain agreed to take over the administration of the troubled Cape Colony” (1994, p. 11), effectively further embedding English’s hooks in Southern Africa.

The Cape was returned to the Dutch in 1803 when the kingdom of the Netherlands had returned to peace. It was not long, however, before war with France erupted once again. In 1806, the British recaptured the Cape territory to once again protect their interests in the East as France laid claim over the Netherlands during the Napoleonic wars (1805-1815). Following their second recovery of the Cape, the British government initiated a settlement programme to create “a colony that was British in character as well as in name” (Warwick & Spies, 1980, p. 12). This was enforced through a policy of Anglicisation. This policy required a sound knowledge of English to access resources provided for the Cape colony and effectively prohibited the Cape Dutch from accessing these resources or being given an opportunity to voice their opinions in the
development of the Cape. By this time, the Dutch were already being referred to as the Boers (Kamwangamalu, 2002). It was during this time that the activity of missionaries increased and education was extended to include Black\(^2\) and Coloured\(^3\) people. In 1814, the Cape was fully ceded to the British (Legassick & Ross, 2010) and English was the official language of the colony. The Anglicisation policy attempted to eradicate Dutch from the colony and have English as the only language of the government or education. Dutch was banned in both the classrooms and playgrounds of colony schools by the Governor of the Cape at the time, Lord Charles Somerset. Malherbe (1900) explains that Somerset truly believed that it was his duty to enforce English upon the Dutch colonists because:

\[\text{they [the Dutch] were only a little over thirty thousand in number, and it seemed absurd that such a small body of people should be permitted to perpetuate ideas and customs that were not English in a country that had become part of the British Empire . . .}\]

(Malherbe, 1900 as cited in Kamwangamalu, 2002)

Anglicisation was taken further under Somerset by proclamations requiring the language of administration in all official documents and in the laws of court to be English.

Early South African immigration came in three main waves. The first occurred in 1820 when between 4000 and 5000 settlers landed in the Eastern Cape. Many of these settlers were brought to the colony by the British government in order to create a settlement away from Cape Town and also to provide a barrier between the warlike-

\(^2\) A term used in South Africa to refer to those people of Bantu descent  
\(^3\) A term used in South Africa to refer to those people of mixed Malaysian, Khoi, Portuguese and other descent.
Xhosa east of the Fish River and the rest of the colony. The settlement also provided new bodies for the militia to continue operation (Lass, 1987). These 1820 settlers from the Southeast of England, who were provided with land for farming, all spoke varieties of L1 English. Within two generations, the regional variations in the population had converged as a consequence of social levelling, forged through a need to weather the hostile environment in which they had settled (Lanham, 1996). Lass refers to this emerging community as one that would form the “nucleus of an emerging South African English” (Lass, 1987, p. 302). In the wake of The Great Trek, relations with the Dutch were generally genial and the languages were often heard side by side. This close contact allowed for adstratum borrowings from both languages, although English did not borrow as much from Dutch as Dutch did from English.

The second wave of English immigrants to South Africa was to the Natal region after the annexation of the Dutch republic of Natalia in 1843. According to Branford (1994), there was already a small English-speaking settlement which had been established in 1824. The British government organised another settlement programme which saw the transport and introduction of between 4000 to 5000 settlers between 1848 and 1862 (Bowerman, 2004). These new Natal settlers were more homogenous in origin and characteristics than the earlier Cape settlers. They were more urbanised; a high proportion came from upper or middle class background and represented the northern counties of Yorkshire and Lancashire. Class boundaries were maintained in Natal due in part to the greater population of the colony and the class system imported by immigrants who settled there. There was more contact with Britain and access to centres of fashion which aided the maintenance of the social stratification brought over from England. Natal English quickly gained prestige over the following half century and continued to maintain prestige following the third wave of immigration (Lass, 1995).
The third and final wave of English immigration to South Africa was possibly the wave which had the least influence on the language as these immigrants adopted the characteristics and features of the English which had developed over the past half century (Lass, 1987). This wave saw an influx of over 400,000 Whites\(^4\) pour into the Dutch-speaking republics, the South African Republic and the Orange Free State between 1875 and 1904. In 1864, when diamonds were first discovered near Kimberley, there were approximately 330,000 Whites living in South Africa with 65,000 speakers using English as an L1 (Watts, 1976, p. 42). The ‘mineral revolution’ caused a great movement of people from all over South Africa to the main areas of mining, centring on Kimberley and Johannesburg. Potential diggers came from England, the USA and Europe. These immigrants brought with them their own varieties of English and other languages, but their dialects soon levelled and adopted characteristics of the dominant extra-territorial Englishes of the Cape and Natal. The development of the mines and the success of some individuals over others saw to the stratification of social classes among the mining cities. Better placed to deal with this environment, the English-speaking Natalians fitted well into the emerging societies as they had maintained their traditions of class distinction and their standard of English quickly gathered more esteem. Lanham (1982, p. 324) describes:

... the fortunate position of the Natalian, whose better education, slightly dubious higher-class status and speech in the colonies could not be faulted by the lower-placed colonials from the Cape (‘whose sensitivities of the fine detail of British behaviour had faded’) and others who had had no contact with Britain and things British.

\(^{4}\) A term used in South Africa to refer to Caucasian people of European descent.
During this period, the Afrikaans-speaking community, having been forced to tolerate English as the medium of education in state schools, developed strong hostility against the English regime (Warwick & Spies, 1980). The bloody war between the Boers and the British that followed culminated in the British prevailing, annexing the Dutch republics, and the eventual formation of the Union of South Africa in 1910. In the new Union, both English and Dutch (by 1924 officially known as Afrikaans) were given official language status although hostility between the languages and community was still prevalent. Dutch was still largely used in rural districts whereas English was more common in the urban areas (Lanham, 1996). Competent bilinguals began to appear in the cities and towns as Afrikaners were able to take positions in councils and government.

According to Kamwangamalu (2002), the period of Anglicisation ended upon the formation of the Union of South Africa and the proclamation of two official languages. A sudden role-reversal occurred in 1948 when the Afrikaner Nationalist Party won the Whites-only elections over the mainly English United Party. Afrikaans became the language of the state and English was relieved of its place in government processes. Mesthrie (1993, p. 29) notes that English continued its dominant role in education of all but the Afrikaner communities and this was highlighted by the Soweto uprisings of June 16, 1976, after the Nationalist government passed a controversial policy, the Bantu Education Act, which sought to install Afrikaans as the medium of education for Black schools. The attempt of the government to impose Afrikaans on the Blacks and their resistance against it eventually escalated into full-scale riots.

From 1948-1994 English became the lingua franca for communication between the opposing parties in the struggle against White dominion and the fight for democracy for all people in South Africa (Bowerman, 2004; Branford, 1994; Mesthrie, 2002). In the aftermath of the Soweto riots, hostility towards Afrikaans became stronger as it
continued to be seen as the ‘language of the oppressor’ by the Black people. English became the language of freedom, both culturally and politically. Following the first democratic elections in 1994, English and Afrikaans became only two of eleven official languages in the new South Africa. In practice, Afrikaans declined rapidly in official circles (Bowerman, 2004) and English became more dominant.

Today, English enjoys much greater prestige than other languages in South Africa. Lanham (1995) points out that English is favoured for purely pragmatic, instrumental reasons as the country needs a language which allows communication between South Africa’s various speech communities while also allowing for its economic and educational sectors to operate efficiently. It is the most dominant language and also the most dominant lingua franca across the country, although in some parts of the country Afrikaans is the language of commerce and daily life.

2.3 Afrikaans

Afrikaans developed in South Africa from the Dutch spoken by the workers and settlers of the Dutch East India Company who arrived at the Cape of Good Hope in 1652. Its origins can be found in the South Holland dialect from the province of the same name (Heeringa & De Wet, 2008). It seems uncertain when and where Afrikaans began separating from the official Dutch dialect but it is assumed to have begun sometime during the 18th century as the term ‘kitchen Dutch’ (Kombuistaal – “kitchen language” in Afrikaans) began to appear. Over the next century, the Dutch used by the Cape settlers was influenced by contact with the languages brought in by other settlers such as German, Portuguese, Malay and French as well as the indigenous Khoisan and Bantu languages and English at a later date. Although Afrikaans has borrowed many words from these languages it still retains an estimated 90-95% vocabulary originating
from Dutch, and therefore it is considered a daughter language of 17th century Dutch (Niesler, Louw, & Roux, 2005). Afrikaans has many features of Creoles and is considered by some linguists to belong on a creole/non-creole continuum (Markey, 1982).

As a language, Afrikaans had formed into a colloquial dialect of Dutch by the time The Great Trek began in 1835. The concept of an Afrikaans identity had been around for almost a century. Hendrik Bibault claimed as early as 1707, “Ik ben een Africaander” (Prinsloo, 1994, p. 7). The practice of writing in Afrikaans began to gain momentum in the 1870s under the guidance and direction of the Fellowship of True Afrikaans which was established in Paarl (Mesthrie, 2002). Afrikaans became the essential tie which ensured the continuation of the Afrikaner culture following the Anglo-Boer War.

2.3.1 Afrikaans in Pre-Apartheid South Africa

The Dutch first established a settlement on what was to become Cape Town in 1652 when Jan van Riebeeck, on behalf of the Dutch East India Trading Company, created a refreshment station on the Cape of Good Hope (Jones, 1998). The British first took formal control of the Cape district in 1795 as a precautionary measure against the French invasion of the Dutch Republic to solidify their interests in trading with India and Australia. From this point onward, it is commonly known that South Africa has had a rather tumultuous and violent history including wars between the Boers and the British, the Boers and the Xhosa, the British and the Zulu.

After the British arrival at the Cape of Good Hope, their enforcement of colonial law and the introduction of the English language hostility and discontentment grew
amongst the Afrikaners who began to move inland in large numbers in what was called The Great Trek (*Die Groot Trek*). The British abolished slavery in 1834 (Welsh, 1998) and saw to it that the first important migration of British immigrants, the 1820 Settlers, were forbidden to own slaves. Slave compensation caused resentment amongst the Afrikaners and many left the colony and an unsympathetic government. The final provocation came in 1836, when Stockenström, the Lieutenant-Governor of the Eastern Province at the time, formalised a frontier treaty that provided for the recognition of Xhosa chieftains and protected their lands from British settlement. The pressure towards accepting the hostile Bantu as well as acceding their White, privileged status in order to consider themselves on equal terms with the Bantu people was unacceptable to the Afrikaners.

The Great Trek saw approximately 12,000 Voortrekkers start the journey northward, following in the steps of Piet Retief from Graaff Reinet, into the interior of the country (Walker, 1934). As they dispersed from the colony, the Afrikaners moved into Natal and the north east, forming what was to become the Orange Free State (*Oranje-Vrystaat*), the Transvaal (*Die Zuid-Afrikaansche Republiek*) and the Natalia Republic. The Natalia Republic came to a swift end as the British settlers annexed Port Natal in order to prevent the Afrikaners from establishing a port from which they could transport goods inland. The Voortrekkers were pushed back into the Orange Free State and Transvaal to escape British authority once again and so effectively removed the Afrikaans language from Natal.

The second Anglo-Boer war began in 1899 and ended three years later in 1902 when the Boer leaders surrendered to the British and a formal act of parliament in 1909 saw the creation in 1910 of the Union of South Africa under British rule. In 1931 independence from British domination was granted by the passing of the Statute of Westminster. In 1948 the National party was elected to power for the first time; this
resulted in the formalisation of the racial segregation which would come to be known as apartheid. During this time under the National party Afrikaans reached its zenith and was utilised as a political instrument, exploited by those in power (V de Klerk & Barkhuizen, 2004).

2.3.2 Afrikaans in the Post-Apartheid Era - a New South Africa

South Africa underwent one of the most radical bloodless revolutions in modern history when it became a fully democratic republic in 1994. That year saw the appointment of Nelson Mandela as the first Black president of South Africa. The new constitution gave eleven of South Africa’s languages official status which had several ramifications on the future of Afrikaans. Webb (2010, p. 106) says that Afrikaans has experienced rapid attrition as a public language, becoming less and less used in state administration and politics, in education (especially secondary and tertiary education) and even in social life, while the use of English has increased proportionately, with the result that English has taken over the status of dominant language in the country.

Where there used to be five Afrikaans medium universities operating in South Africa, only two still retain some semblance of bilingualism through Afrikaans and English (Webb, 2010). During the apartheid era Stellenbosch University was heralded a true Afrikaans university, one from which a political elite graduated. Things have changed with English becoming more dominant at all universities, including Stellenbosch. At the predominantly Afrikaans University of the Free State the current president of the university, Jonathan Jansen, set precedents when he announced the introduction of compulsory Sesotho language courses for white students as well as compulsory Afrikaans classes for Blacks.
In the last twenty years English has acquired de facto privileged status (while Afrikaans consequently lost status) partly because it is not possible to treat eleven languages equally at all times. Despite this, however, there are continuing efforts to maintain a certain amount of status for all (including Afrikaans) – as may be evidenced by the huge numbers of interpreters and translators operating in parliamentary, provincial, judicial and other governmental and non-governmental areas. English has essentially taken over in educational and business circles and Afrikaans continues to be associated with many negative aspects of the apartheid regime, although it retains its status as a lingua franca in rural communities from the Western Cape to Limpopo and there are still bastions for Afrikaans - these being the old capitals of Bloemfontein and Pretoria, as well as areas with large coloured populations. This has led to a feeling of embarrassment or ‘white guilt’ amongst Afrikaners, as Griffiths and Prozesky put it (2010, p. 37), and another feeling of disempowerment as they lose their ability to control things which matter deeply to them (Webb, 2010). A significant feeling of loss amongst the Afrikaner population has contributed to their “experience of significant trauma and identity dislocation”, as summed up by Louw (2004c, p. 51). Many of these Afrikaners and other White South Africans have left South Africa and migrated to other countries. For the Afrikaners, more than for the English-speaking white South African, relocating to another country involves a willingness to leave behind a large part of one’s identity linked to the language one speaks. Although much of the current diaspora is an escape from the escalating crime in the country, “PFP”, packing for Perth\(^5\), once a term associated with those who could no longer live under the racist policies of the apartheid regime, is now something Afrikaners experience as commonplace too and is becoming accepted as a reasonable, if not highly sensible, action for the current generation.

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\(^5\) PFP was originally a slightly left political party (Progressive Federal Party) in opposition to the Nationalist Apartheid government. “Packed/packing for Perth” was a humorous take on an already existing abbreviation
2.4 Afrikaans identity

Afrikanerdom or the Afrikaner volk or the Afrikaners simply do not exist as a separate, identifiable group any longer. They are, however, different groups or fragments of Afrikaners, or Afrikaans-speaking whites. Some regard themselves as the Afrikaner volk, others simply as Boere, others as South Africans and others again as Afrikaans-speaking Africans.

(Serfontein, 1990, p. 19)

This section looks at the development of Afrikaans identity throughout the late nineteenth century (although the Afrikaners, originally as Dutch settlers, had been in the Cape since Jan van Riebeeck established the first Dutch refreshment station in 1652), from the aftermath of the Second Boer War through the apartheid regime and consequent development of the Afrikaner Nation state, and its decline post-1994 following the elections of that year and subsequent rise of “Afrocentricism” (Louw, 2004c, p. 55) as policy under the new black majority government. The information in this section provides explanation of the basis from which their identity developed in order to assist with answering research question three; which considers the influence that the self-identity of the Afrikaans-speaking participants has on their pronunciation, and why they often maintain strong links with the Afrikaans identity and South Africa.

The Afrikaners are not solely descended from Dutch stock. There was considerable Huguenot French influence which began to integrate with Afrikaans culture in 1688 with the first migrants from France landing in the Cape of Good Hope, fleeing renewed religious persecution in France (Bryer & Theron, 1987). The Huguenots were eventually absorbed into the Afrikaans population because of similar religious beliefs; however, their influence lives on, namely in common Afrikaner surnames, examples include Du Toit, De Villiers, Du Plessis, Le Roux and Marais.
The French migrants were further augmented by migrants from Germany and Malaysia (Worden, Van Heyningen, & Bickford-Smith, 2012). The Malaysian influence can be seen on the Afrikaans language in words such as *piesang* (banana) and *baie* (very, a lot). The diversity of the migrants was overcome through the use of a common tongue (Afrikaans) and they eventually adopted a similar political orientation. This early mix of cultures became the base from which the Afrikaner identity grew (Tamarkin, 1996), and a cohesive social group formed.

The cohesiveness of the Afrikaans social group and their speech community in South Africa is very different from that of their South African English-speaking counterparts. As it the following sections explain, the Afrikaans identity was forged through struggle against both African tribes and Anglo-imperialism (Louw, 2004c; van der Westhuizen, 2018) and is very robust. Even today, hostility between English and Afrikaans speakers remains (Silva, 1997). In comparison, the South African English speakers have a relatively undefined and disjointed cultural group (Foley, 1991; Sennett & Foster, 1996), and prefer to define themselves in terms of who they are not (e.g. not Afrikaners, not Blacks) than coming together as a cohesive social group under one identity (Salusbury & Foster, 2004). This lack to unity is explained by Steyn (2005) who holds that English-speaking South Africans retain many connections to their European heritage in a form of global belonging. The consequence of this is that they do not need to identify strongly with each other because they still foster that connection with their European ancestors. This contrasts strongly with the Afrikaans identity which is inextricably linked to the land of South Africa and the Afrikaans language. The development of the Afrikaans identity is explained below.

According to Louw (2004b), Afrikaner identity has gone through three separate stages; from a struggling beginning under British imperialism, to a strength of which the world has rarely seen in such a short time, to a decline triggered by governmental
change. The history and development of the Afrikaans identity is complex and this study attempts to present a brief outline of the growth of the Afrikaner throughout the later part of the history of South Africa.

2.4.1 The first phase (1902-1947)

The recurring trend in this phase (1902-1947) of the development of an Afrikaans identity is that of the struggle against Anglo-cultural imperialism (Louw, 2004b, p. 44). This was not by any means the first time an identity for Afrikaners had been present, but it was an important time during which it began to develop and gather individuals from a wide area to create a more homogenous imagined community based around a single language - Afrikaans. According to Van der Waal, Afrikaans culture and identity are inextricably intertwined with terms such as ‘purity’ and ‘tradition’ which assume fixed cultural boundaries (2012). It is understandable that this is the case in a society which has been highly polarised; for example, Anglophone South Africans vs. Afrikaans South Africans or Black South Africans vs. White South Africans, since its inception and that the language and identity of Afrikaners has been associated with struggles for recognition and hardship under British imperial rule.

The aftermath of the second Boer War (1899-1902) left a large proportion of Afrikaner middle class in acute poverty (Gilliomee, 2009). The defeat of the Afrikaners saw the British establish English as the language of commerce, industry and state administration across the newly-formed South African Union. Lord Alfred Milner, an English imperialist and the first Governor of the Transvaal and Orange River Colony, began attempting to Anglicise the Afrikaner population. By his decree, Afrikaans was banned in educational facilities and only English was to be used. During this time Afrikaner resentment towards the Anglo-cultural rule began to grow once again and the Afrikaans elite campaigned for the acceptance of Afrikaans as an official language
(to replace Dutch) beside English, for Afrikaans-medium schools and for the development of a bilingual policy to promote the use of both languages in all areas (Louw, 2004b, p. 44)

This growing resentment towards the British increased through the 1920s and 1930s and was worsened by the poverty experienced by Afrikaners whose lack of literacy in English and under-representation in business left many unemployed in the shadow of World War II. The increasing inequality between the majority Afrikaners and minority English speakers provided opportunity for the Afrikaner Nationalist Party (NP) to win the 1948 elections, thus ending phase one and beginning phase two of Afrikaner identity.

### 2.4.2 Phase two and the imagined community of Afrikaners

The British Anglophone rule was overturned when the NP united the various groups of Afrikaans-speaking, White South Africans and came to power under the ideal of *volkseenheid* (national unity) “… on the basis that they were discriminated against as Afrikaners, a condition which would end only when all Afrikaners were united in a single political movement” (O’Meara, 1983, p. 243).

The newly-formed Afrikaner government promptly set out to undermine the culture of their Anglophone predecessors and, in response to their fear of being a minority group in the face of a Black majority, the policy of apartheid was born. Apartheid ensured that the White minority would be able to define the borders of a national territory where their budding nationalist state could develop and function. The ‘homelands’, developed from prior reservations set up by the British, were the Nationalist Party’s way of guaranteeing White demographic majority through the eventual planned independence of the homelands and subsequent loss of South African
citizenship for the Black Africans who were relegated there (Mathieson & Atwell, 1998). Apartheid was based on the Dutch *verzuiling* (pillars of society) model which saw different groups separated out so a national space was left for the Afrikaners (Cronje, 1945).

Under this regime the Afrikaans language received powerful patronage from the NP and this led to an increase in Afrikaans-based legislation, such as the 50-50 (Afrikaans-English) bilingual language policy throughout the schooling of White children, an expansion of Afrikaans infrastructure in the form of schools and Afrikaans-medium higher education institutions which in turn provided stimulation for the development of publishing facilities and subsequent growth in newspaper and literature sectors in the Afrikaans language. In effect, Afrikaans became the standard language of the state, even though it shared official status with English. This is a common strategy by nationalist governments. As Bourdieu (1991) points out, language is a vital resource that contains symbolic capital which provides access to opportunities and networks and a government’s ability to sustain inequalities, e.g. by promoting a national language.

This conscious creation of identity results in what Anderson terms “imagined communities” (1991, p. 44). Anderson (1991, p. 133-134) describes a link between imagined communities and print languages. The concept behind an imagined community came from a hybridisation of two definitions of identity – that of modernist views and postmodernist views. Anderson’s understanding is based on the modernist view of nations being constructed and communication-based. The postmodernist influence can be seen in the view nations are linguistically, semiotically and socially constructed. Anderson’s work is useful for grappling with the concept of identity within political environments, and understanding how an identity (such as the unified Afrikaans identity) can be constructed and promoted through the complex interaction
by politicians and their hype industry, the media, the intelligentsia (educationists and journalists), and the public. Anderson deftly explores the dual nature of national identities, arguing for instance that national identities can be manufactured and built up by intelligentsia/the public elite but can also develop beyond the intelligentsia campaigns and become self-sustaining.

Anderson’s concept of imagined communities helps recognise the significant and conscious role played by the middle-class Afrikaner intellectuals in the construction of Afrikaner identity. This specific intelligentsia held positions of high regard in the Afrikaner community - they were journalists, academics, ministers of religion, the authors and teachers at all levels. During the second phase of Afrikaner identity building, teachers were important in promoting the nationalist agenda as Du Preez (1983, p. 73) points out. Text books, teaching methods and principles were imbued with master symbols which served to indoctrinate Afrikaans children with a history of struggle and pride. Examples of beliefs are:

- Authority is not to be questioned
- Whites are superior
- South Africa is an agricultural country and Afrikaner folk are farmers
- South Africa belongs to the Afrikaner
- The Afrikaner is threatened
- The Afrikaner has a special relationship with God and the Afrikaner nation is God’s chosen nation

The repetition of these principles reinforced a common identity based on a common culture, tradition and language among a growing group of literate Afrikaners. The Afrikaans language became one of the cornerstones of Afrikaner identity,
providing a common ground to which all could relate (Du Preez, 1983; Louw-Potgieter & Giles, 1987).

The belief that the Afrikaner has a special relationship with God explains the conviction felt by the community that they had a God-given task in South Africa (Du Preez, 1983). The Afrikaners believed that their history, so fraught with struggle for recognition and fear of identity loss, paralleled that of the Jews (Boonzaier & Sharp, 1988). The Israelites journeyed out of Egypt under the guidance of Moses across the desert and the Afrikaners had experienced the Great Trek. The Afrikaners believed in spreading the word of Christianity in a similar fashion to the way the Israelites had proclaimed their religious beliefs in the face of the ruling Egyptians. The Afrikaners had even made a pact with God, the Day of the Vow, December 16th (now the Day of Reconciliation) which resembled the pact Moses’ people made with God (Cloete, 1992).

As well as the imprinting of their God-given status and the principles being taught throughout school, the government and other pillars of the community consciously facilitated the development of the Afrikaner nationalist identity through campaigns and projects aimed at a malleable middle class. This middle class was consciously and deliberately constructed, amongst other ways, through the establishment of the Rand Afrikaans University and government programmes (such as scholarships for poor Afrikaners) which raised a large working class. Such projects took a variety of shapes (Cronje, 1945; Louw-Potgieter & Giles, 1987; Louw, 2004c), such as:

- Encoding a new language (Afrikaans)
- Creating an education system using Afrikaans as a medium to relay nationalist doctrine and create an Afrikaans-literate public
- Promoting a wholly “Afrikaans” identity requiring an African language distinct from European influence (Dutch and English)
- Gathering and encouraging resentment towards Anglo South Africans and organising these into a coherent worldview which demanded a separate Afrikaner “cultural space”
- Promising to end poverty for the working-class Afrikaner
- Increasing the amount, and efficiency, of Afrikaans-based infrastructure such as newspapers, schools, magazines, radio and eventually television, through which a collective Afrikaner identity could be fostered and separate ‘cultural spaces’ be established

This organisation and bolstering of the Afrikaans identity by the NP government succeeded, as by the 1970s an Afrikaner ‘imagined community’ existed autonomously of the conscious work of the intelligentsia and NP hype. Cohesiveness had developed to the point where a self-sustaining dynamic had formed, based upon the beliefs and literacy of a public who were educated in Afrikaans and could use Afrikaans texts. This dynamic provided a community into which individuals could place themselves and relate while experiencing a “group-ness” (Louw, 2004c, p. 53), tied to a geographical boundary (South Africa), an ‘in-group’ solidarity, a worldview/set of myths and beliefs, and a distinctive set of cultural practices and discourses separate from those of their Anglo South African counterparts. More importantly, this now self-sustaining, dynamic imagined community became inextricably connected to the development of the Republic of South Africa, and the Afrikaner identity encoded to itself a powerful sense of attachment to the state (Mathieson & Atwell, 1998).

Not all was peaceful in the creation of the Afrikaner identity. Such blatant reinforcement created strong attachments and beliefs and concomitant fear of other identities was present. According to Van Jaarsveld (1978) and Hugo (1988), such fear and the resultant persecution complex were part and parcel of the Afrikaner mentality. Korf and Malan (2002) suggest that, although these fears may have abated somewhat in
the younger generation they may still be present in the older community who knew different times. As the 1970s progressed into the 1980s, more and more Afrikaners found themselves comfortably sitting in middle class during a period of industrialisation and urbanisation due to the policies laid out by the apartheid government. However it was this increase in the middle class Afrikaner that began to unravel the nationalist party regime from within (Blaser, 2012). The middle class Afrikaners began to shift from their unionist identity to a more individualised identity as a reaction to their newfound independence, consumerism and new investment within the global economy (Davies, 2007). This shift in identities and political beliefs was a factor in the downfall of the regime, alongside many other factors such as demographic and economic change (Blaser, 2012).

2.4.3 Third Phase: The decline of Afrikaans and Post-Apartheid Revival

The National party, consisting mainly of Afrikaans-speaking White South Africans, enjoyed majority power in South Africa government from 1948 to 1994 (Le May, 1995; Louw-Potgieter, 1988). In the wake of the 1994 elections, in which the first black government was democratically voted into parliament, the Afrikaans community suddenly found themselves once again one of the minority groups of South Africa, marginalised by a government fuelled with leftover resentment from the apartheid era and geared towards ‘Black empowerment’. This new government of Westernised Black South Africans supplanted Afrikaans with English as the de facto language of the state and thus initiated the collapse of Afrikaans and subsequently onset of the third phase, namely the decline of Afrikaans (Louw, 2004c, p. 54).

The ascension to power of the African National Congress (ANC) resulted in an immediate drop in status of the Afrikaner. The government’s “Afrocentricism” was in
direct opposition to everything the previous government had established and undermined the previously-constructed Afrikaner ‘imagined community’ and the NP’s nation-building project was replaced with the more liberal Atlantic Charter for nation building (Louw, 2004b). The charter is of great importance because of its Anglo-cultural roots. After the end of World War II, the United States of America set about imposing a particular nation-building model on the rest of the world. The Atlantic Charter promotes a vision of “national” political participation that effectively transforms Anglo-derived governance, value systems and economic models into a “pan-human universalism” (Greenfield, 1993, p. 446). This model promoted a unified South African imagined community, counteracting the pro-Afrikaans policies of the previous government, and pushed the Gauteng (the province which incorporates the greater metropolitan area of Johannesburg, Soweto, Pretoria and other smaller cities) multicultural norms where English was more commonly used as the lingua franca than Afrikaans was.

As previously mentioned, national projects can promote vernacular national languages. The emerging new South Africa assembled its imagined community around South African English as evidenced by the adoption of English as the de facto language of state, commerce and education, post 1994 elections. The effect of this change was increased by the fact that English is the language of globalisation and that Anglo-American cultural products (via television and Hollywood) are readily available. As a result, the pressure on young South Africans to learn and use English became enormous (Louw, 2004a, p. 55).

Consequences of the government changeover were quickly seen as language policies began to be produced. South Africa now has 11 official languages, with English as the dominant (but not solely official) language, in government, commerce and education (Barkhuizen, 2002; Probyn, 2001). The consequence of this change was that
Afrikaans was dropped as the language of state bureaucracy with the majority of local and provincial offices choosing to execute their administration in English. English was seen as the language of progress and development (Kamwangamalu, 2000) and quickly overtook the other ten national languages in its widespread use. The new government changed the use of prominent Afrikaans acronyms for State-owned enterprises, e.g. SAUK – Suid Afrikaanse Uitsaaiikorporasie (also SABC – South African Broadcasting Corporation), SAL – Suid Afrikaanse Lugdiens (also SAA – South African Airways). The use of Afrikaans declined in commerce, marketing and advertising due to the political ramifications associated with it and Afrikaans has declined in broadcasting because it has been supplanted by the other official African languages (Du Plooy & Grobler, 2002). “BEE” or ‘Black Employment Empowerment” has also seen previously White-owned companies required to appoint Black directors and state-owned enterprises and government institutions to employ Black managers who demand their staff speak English. This is illustrated in an example from De Klerk and Barkhuizen in which a participant described the frustration of people from different languages trying in broken English to get work done (2004, p. 104).

The use of Afrikaans in higher education and academic publishing has also given way to English only (Probyn, 2001). This is also related to the enforced legislation requiring once fully Afrikaans-medium Universities to offer English-medium classes in an attempt to become more accessible to non-Afrikaners. Nowadays, in the case of budget cuts and political protest by students, forced mergers between Afrikaans-medium and English-medium institutions would see English become the main medium of the combined institution (Louw, 2004c) to the point where are no more Afrikaans-medium Universities.

Phase three is essentially the beginning of the decline of the Afrikaans language and the cohesion the Afrikaners had built for themselves in phase two. It was not only
the loss of government and security which destabilised their positions, but also the hostility directed at both their culture and language.

This loss of position and downgrading of the Afrikaans language led to the breakdown of the imagined community which had been built by the NP. Breakwell (1986) explains that when individuals moves in their social matrix, they will be required to re-evaluate their personal identity. This movement may be voluntary and at the individuals’ own discretion, or it may be necessary when social circumstances surrounding the individual change and force a change from one position to another. For the Afrikaans-speaking White South Africans, it was that their social circumstances changed and they were forced to revise their identity. In some cases, this saw some previous Afrikaners come to identity as “South African”. In other groups, the Afrikaans identity became stronger in the face of adversary once again.

In the section on ethnic identity later in the thesis (§5.2.1), the principles of finding an identity by Breakwell (1986) are discussed. These principles are relevant for the Afrikaner community which grew out of struggle only to be involved once again in a battle for recognition. Breakwell’s principles can be deployed to understand the instability of the Afrikaner identity in post-apartheid times with distinctive correlates with the most infamous feature linked with Afrikaner identity – apartheid. “Afrikanerdom” is described by Legum and Legum (1964, p. 17) as “the systematic expression of an exclusively Afrikaans-speaking political, cultural and social movement, committed to preserving its uniqueness by establishing its hegemony over the whole country.” When the new government abolished apartheid, the seemingly solid structure surrounding this principle collapsed and the ease with which Afrikaners defined their distinctiveness also disappeared (Korf & Malan, 2002).
The loss of the political majority and the consequences which follow the transformation of the Afrikaans-speaking Whites to a lower status posed a problem to the continuity of the Afrikaner identity. These same political issues also threatened the esteem as the Afrikaner group was no longer linked to power and status. The Truth and Reconciliation Commission revealed many atrocities committed by supporters of the White ruling minority, which brought many people associated with institutions linked to the previous national government, such as the police, into disrepute. The Afrikaans language fell into such disrepute in the immediate aftermath of the elections of 1994 that even being educated in Afrikaans became a disadvantage in an ever more competitive job market (Louw, 2004a).

The destabilisation of the Afrikaner “imagined community” saw an increase in feelings of disenchantment with the new state and families began to leave the country. These families were a significant group of higher-educated, professionally-skilled, White and often Afrikaans-speaking South Africans (M. van der Waal, 2015). This diaspora has been called “the new Great Trek” (Van Rooyen, 2000), the “brain drain”, the “slip or stay issue” or “the chicken run” (Brand, 2003).

Since the 1994 elections and in response to lowering Afrikaans to a level of parity with the other official languages, there have been attempts at reviving the language and, by doing this, strengthening once again the Afrikaans identity. The language is celebrated through Afrikaans language festivals, publication of Afrikaans literature and novels, the production of Afrikaans music and other grassroots organisations (Alsheh & Elliker, 2015). Songs such as “De la Rey”, which came out in 2007 and was controversial at the time, appealed to a group who were feeling nostalgia and needed a cause to celebrate a renewal in their identity (C. S. Van der Waal & Robins, 2011). Since then, other songs, such as “Sing, Afrikaner, Sing” have been released, illustrating a growing, newfound pride in the Afrikaans identity.
In this day and age, ‘Afrikaners are more connected to the globalised political economy’ (Davies, 2009, p. 72) and this has affected their identities in different ways. As can be seen from this study, some Afrikaans-speaking individuals have shifted their identities to a more inclusive South African identity, distancing themselves from the recent history of apartheid and the right-wing government which implemented it. Other Afrikaners have found that they are left in a sombre mood in the wake of the loss of their privileged status, good life and loss to Christian values throughout the public sphere (Blaser, 2012), while others yet feel indifferent to the changes in their identity and accept that the choice of which identity an individual is a personal choice (see Davies, 2007, 2009, 2012). In the wake of the instability and changes that occurred post-apartheid, many Afrikaner families chose to relocate.

If individuals and families choose to relocate, their reasons for emigration are as diverse as the migrants themselves. However, there are some patterns which appear. The primary reasons for leaving would seem to be linked to crime, political insecurity and pessimism for the future, and secondarily for economic, educational and linguistic reasons (V de Klerk & Barkhuizen, 2004; M. van der Waal, 2015). According to Visser, Afrikaner emigrants prefer to relocate to “predominantly Caucasian countries” where ethnicity is a stable concept (less struggle against competing identities for the same space) and “not questioned or challenged” and where the cultural milieu was somewhat similar to what they had been used to in South Africa (2007, p. 10). For this reason they tend to choose other English-speaking countries such as Australia, the UK, the USA, Canada and New Zealand.
2.4.4 Afrikaans-Speaking Migrants in New Zealand

The lead up to and after 1994 saw a substantial increase in the number of South African (including Afrikaans-speaking) immigrants to New Zealand. The over fifty thousand South African-born individuals in New Zealand have become an important ethnic group within the overall population. This section will look at some of the studies which have looked at how these immigrants imagined themselves prior to relocation, how they have adapted, and how they are coping with the language change. Further information on L2 in diaspora and the sociolinguistic factors behind their L2 development and variation is provided in section 5.1.9. This section provides further background for research question three by considering previous studies on Afrikaans migrants in New Zealand and how they have coped with relocation; with focus on language maintenance and reasons for relocation.

Afrikaans-speaking South Africans migrate to New Zealand for any number of reasons. Smith (2001) suggested a variety of reasons from their data: insecurity about South Africa’s political future; the high violent crime rate; the perceived drop in education standards across all levels; doubts about the economy; and affirmative action policies in the workplace.

As they have gained recognition and increased in number, more studies have been conducted on this specific population group. Barkhuizen and de Klerk (2006) looked into the perceptions and imagined identities of Afrikaans-speakers who were planning to relocate to New Zealand. The study uses Norton’s (1997) identity framework, to explain the perceptions of participants towards their previous and current lives (in South Africa) and their future lives in New Zealand. Barkhuizen and de Klerk (2006, p. 279) suggest that:
... for those South Africans who claim violent crime as a reason for emigration, reference to security and safety is particularly pertinent ... for those who experience subjective disaffiliation as a result of the new political dispensation in the country, the desire for new affiliations in New Zealand would be strong.

Barkhuizen and de Klerk also cite van Rensburg’s description of modern perceptions of the Afrikaans identity: the identities of Afrikaans speakers in South Africa have been firmly located within the discourses of Afrikanerdom in apartheid and post-apartheid South Africa (van Rensburg, 1999, as cited in Barkhuizen & de Klerk, 2006, p. 279). They found that some participants were more open-minded about the life that lay ahead of them and the changes in language use that they would face. Other participants were less optimistic about the lifestyle changes before them.

Once they have relocated, all the Afrikaans-speaking migrants, regardless of imagined possibilities, experience varying levels of culture shock pertaining to their lifestyle changes and language use. This shift from the South African context results in a significant shift in identity (Hatoss, Starks, & van Rensburg, 2011). This shift in the identity of the Afrikaans speakers in New Zealand, and the feelings of dislocation post-relocation, culminate in a sense of identity vulnerability (Sawicki, 2011) - the consequences of which are discussed in chapter eight (Qualitative analysis). Even though New Zealand is a popular destination for Afrikaans speakers and there is plenty of information on the target culture, the differences between South Africa and New Zealand are still often underestimated (Winbush & Selby, 2015).

Reyneke (2004) identified three different migrant coping strategies to deal with culture shock. Aside from the honeymoon period where the participants enjoy the excitement of a new country with new and interesting features, the first coping mechanism involves the vilification of everything South African to justify the personal
losses from moving. The second consists of negative reactions to all things New Zealand and living in the nostalgia of their South African experience. Finally, if the previous two strategies were opposing ends of the same continuum, the third is the midpoint where migrants accept the existence of both negative factors from South Africa and positive factors from New Zealand, while also acknowledging the presence of problems unique to New Zealand.

The connection between language and identity is complex for the Afrikaans-speakers. As Lanham and MacDonald (1979, p. 26) note,

The primary social division in white South African history is unquestionably that of language loyalty (English versus Afrikaans as first language).

The Afrikaans language has always been integral to identifying as Afrikaans. The language loyalty of Afrikaans speakers has always been more intense than that of their English-speaking counterparts, due in part to the attempts by the British government to suppress it (V de Klerk & Bosch, 1998). For Afrikaans-speaking people, the language has always been the core of “politics, religion and development” (Watermeyer, 1996, p. 101).

The migrants to New Zealand bring these dispositions towards their language with them when they relocate. Relocating to New Zealand and having to resettle in a new culture and begin working, socialising and learning in a second language all contribute towards high levels of anxiety in migrant adults (Winbush & Selby, 2015). Children often find it easier to adapt to using English. This generally leads to varying levels of language attrition in the children of migrants, despite parents employing strategies to continue using Afrikaans (Barkhuizen, 2006). Barkhuizen (2006) found that there were two main factors (language group loyalty and perceptions of the language usefulness) which influence a migrant family’s decisions regarding home language and
these are often in conflict with maintaining their own cultural and linguistic roots. Barkhuizen found that while his participants were, in fact, very aware of their children’s language practices and shifts towards English, they often felt that the gains in fluent English outweighed the losses of attrition in Afrikaans. This suggests, if not open acceptance of a shift towards English, then a resigned understanding of the needs of developing English competence in New Zealand.

For many Afrikaans-speaking migrants, the consequences of language change are illustrated by the feeling of ‘linguistic longing’ (Barkhuizen & Knoch, 2005). They found that most of their participants (Afrikaans-speaking migrants in New Zealand), claimed to miss various linguistic aspects available to them in South Africa, such as being able to use Afrikaans in the street and to read the newspaper in Afrikaans. Some participants develop maintenance strategies to minimise the loss. However, in the end, linguistic longing was found to be strongest in those who felt they had undergone language shift/loss.

2.5 Afrikaans English

Afrikaans English (AfrE) is a variety of L2 English which is used by the Afrikaans-speaking community of South Africa. In most research articles, AfrE has been relegated to a place near the bottom end of the SAE continuum, after Broad SAE (see Lanham, 1967; Lanham & Traill, 1962). Although viewpoints are changing, there is still an obvious division between those who consider it a separate English second language variety in its own right and those who classify it along the SAE continuum. Watermeyer (1996) and Branford (1994) regard it as a separate English variety, whereas Bowerman
(2004) mentions that the Afrikaans English variety is similar in characteristics to Broad SAE, closely approximating the SAE accent. Further evidence for this is that Afrikaans English is omitted in *A Handbook of Varieties of English: Phonology*, which contains articles dedicated to South African Indian English, Cape Flats English and Black South African English. This omission suggests its apparent closeness to Broad SAE.

The apartheid era not only separated South Africans by race, but it also separated them on the basis of their home languages in schools. Afrikaans students were taught in Afrikaans schools and English–speaking (Anglophone) students were taught in English-medium schools. Bilingual (dual medium) schools existed as well, but classes were generally separated by language, especially in the primary school sector. By government decree, it was required that each language group learn the other official language throughout their twelve years of schooling. Watermeyer (1996, p. 104) explains that during their language education, real communication was not always important and many students often had little opportunity to immerse themselves in the other’s language outside of the classroom. In rural areas where Afrikaans was dominant, the language teachers themselves who were often L2 speakers of English, with little fluency, inadvertently perpetuated features of AfrE in their teaching. However in many parts of the country Whites are fluent in both Afrikaans and English in the same way that Black people are often fluent in three or more languages, of which one is usually either English or Afrikaans.

Like other L2 speech varieties, AfrE has specific phonological and morphological features which are present in Afrikaans L1 and might thus be considered examples of interference or negative transfer. According to Crystal (2011, pp. 167–245), hyper-correction, “the movement of a linguistic form beyond the point set by the variety of language that a speaker has as a target”, and overgeneralisation, “the use of a grammatical feature to contexts beyond those found in the [standard] language”, are
often factors that influence the production of L2 varieties of English, both phonological and morphological. These two processes are present in the speech of Afrikaans-speakers when they speak English. Although the characteristic features of AfrE have, in the past, for the most part been attributed to interference from the L1 (Watermeyer, 1996, p. 105), the other processes are also operational.

Lanham (1967, p. 103) defines AfrE as distinguishable by a heavy Afrikaans accent exhibiting several phonological features transferred from the system of Afrikaans into their English. Watermeyer (1996, p. 106) mentions that “Lanham maintained that AfrE was not the speech of upper-class, competent bilinguals, most of whom speak SAE”. Her study, however, strongly suggested that some educated bilinguals may, in fact, present the characteristic features of AfrE in their speech and may speak with a heavy Afrikaans accent. Language and identity are strongly intertwined and the following section explores the evolution of the Afrikaans identity through three phrases as outlined by Louw (2004b).

This chapter provided some background to the development of the dialects of English that are to be used in the present study to answer research question three. It then dealt with the construction of the Afrikaans identity throughout history, its unbreakable connection to South Africa and the Afrikaans language, and considered how Afrikaans migrants deal with relocation to New Zealand and the consequent changes in their language use.
Chapter 3

The Description of Consonants

3.0 Overview

This section describes the consonants of NZE, SAE, Afr and AfrE and focusses specifically on those consonants that are analysed in the English pronunciation of participants in this study. This chapter, dedicated to informing the reader about research question 1, is separated into three sections; each detailing a consonant in each of the three dialects. Overall, the consonants of NZE and SAE are similar as can be seen in Charts 1 and 2. Afrikaans has a similar system of consonants to English but there are differences in aspiration and realisations of /h/ and /r/. Word-final consonant devoicing is also mentioned in this chapter to provide a better illustration of the Afrikaans language; however, this process will not be dealt with in this thesis. The similarities between the consonant systems of the languages allow for comparisons to be done between English- and Afrikaans-speaking participants in this study.

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6 The use of /h/ and /r/ indicate all of the possible realisations in both English and Afrikaans.
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Chart 1 Consonants of NZE (Bauer & Warren, 2004; Bell & Kuiper, 2000; Hay, McLagan, & Gordon, 2008)

SAE is another English dialect located in the southern hemisphere, often grouped with both AusE and NZE. Lanham (1962) classified South African English into two groups: SARP 'A' and SARP 'B', where 'A' is on the side of the spectrum closest to RP and 'B' is on the opposite end towards the general South African English pronunciation. He also mentions non-SARP SAE, toward the broader SAE accent. A decade later, Lanham (Lanham, 1978) re-categorised SAE into three separate categories: Conservative (that which is closest to RP), Respectable and Extreme (most often, in Lanham’s perspective, associated with Cape English or with speakers who have a large Afrikaans influence). These divisions are not monolithic; they are all part of a subtle continuum on which conservative, respectable and extreme are placed. In an article referencing these appellations, Mesthrie suggests that the parallel terms, 'Cultivated', 'General' and 'Broad', would be a less judgemental framework with which both individual speakers
and communities could be classified (1993, p. 29). These appellations are also adopted by Bowerman (2004) in his description of SAE.

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<td>η</td>
</tr>
<tr>
<td><strong>Approximant</strong></td>
<td>(ʍ) w</td>
<td></td>
<td>j</td>
<td>(r)</td>
<td></td>
<td></td>
<td></td>
<td>j</td>
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<tr>
<td><strong>Lateral Approximant</strong></td>
<td></td>
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<td>l</td>
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</tbody>
</table>

*Chart 2 Consonants of SAE (Bowerman, 2004; Lass, 2002)*

There are few descriptions available of Afrikaans consonants, and the present study uses descriptions from Coetzee (1981a) and the work of Donaldson (1993). Coetzee(1981a), following Afrikaans scholarly traditions, diverges from the path of conventional linguistics in her classification of consonants. She separates the consonants according those that are *Egte Konsonante* (real consonants) which incorporate the plosives and fricatives, and *Onegte Konsonante* (false consonants) which are the nasals, trills, and laterals. Donaldson uses standard IPA transcription and unless otherwise specified will generally be the main reference for this section.
The consonants described below were selected because of the differences in articulation between NZE and Afrikaner English, specifically in the aspiration of /p, t, k/, the articulation of /t/, and the voicing of /h/. The objective of the present study is to obtain an indication of the sounds made by Afrikaners speaking English. A description of the phonological system of Afrikaans is provided because there is a certain amount of transfer which occurs, creating the Afrikaans English dialect (Branford, 1994; Watermeyer, 1996). A precise prediction of the sounds of Afrikaans English using the phonological system of Afrikaans is not possible; however, it does assist because of the L1 transfer.

The phonological system of the Afrikaans language and Afrikaans English does not generally possess aspirated plosives in any environment, which is the reason the consonants /p/, /t/ and /k/ were chosen for analysis. English tends to aspirate these three

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labiodental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post-alveolar</th>
<th>Palatal</th>
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<td>p</td>
<td>b</td>
<td>t</td>
<td>d</td>
<td>k</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Affricate</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Fricative</td>
<td>f</td>
<td>v</td>
<td>s</td>
<td>ʃ</td>
<td>(c)</td>
<td>x (χ)</td>
<td>ɦ</td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m</td>
<td></td>
<td>n</td>
<td></td>
<td>η</td>
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<tr>
<td>Approximant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>r</td>
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<tr>
<td>Lateral Approximant</td>
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</tr>
</tbody>
</table>

*Chart 3 Consonants of Afrikaans* (Donaldson, 1993)
consonants when they are stressed syllable-initially, e.g. comma, party and tower. The other two consonants which are included are /r/ and /h/. In NZE /r/ is articulated as the alveolar approximant [ɹ], syllable-initially or intervocally, e.g. Rory [rɔːiɹ], and it is often dropped word-finally or in syllable-final consonant clusters, e.g. start [staːt]. Whereas in Afrikaans and Afrikaans English /r/ is always an alveolar trill in all positions, e.g. rand [ʁənd], warm [vɔrm] and water [wɔtər]. In NZE, /h/ is a voiceless glottal fricative [h] in stressed syllable initial positions and silent in unstressed positions, whereas in Afrikaans English /h/ is realised as a voiced glottal fricative [ɦ]. These five consonants make up the first part of the quantitative data for this study.

3.1 The Stops /p/, /t/, /k/

The following section will explain and illustrate with some examples the stops of NZE, SAE, Afr and AfrE, and certain phonological processes/variations which may pertain to the individual consonants.

There is little in the literature concerning the stops /p/ and /k/ in NZE. /p/ and /k/ have two allophones in complementary distribution. Aspirated [pʰ] and [kʰ] occur syllable initially, except when contained in a consonant cluster (Bauer, Warren, Bardsley, Kennedy, & Major, 2007); unaspirated forms occur intervocally and in syllable-initial consonant clusters, e.g. in space [spaes] and skate [skæt / skaet].

Word-initial /t/ is always aspirated, and occasionally affricated in certain environments, in NZE. Articulated by touching the tip of the tongue to the alveolar ridge while restricting airflow and suddenly releasing, [tʰ] has very few exceptions when occurring word-initially and it is a characteristic in identifying speakers from other countries. Affrication of initial /t/ occurs in environments preceding the GOOSE vowel, e.g. tune [tʌn]. If truly articulated word-finally, /t/ will usually be aspirated [tʰ],
although this is a feature which is restricted to the older generation (Bayard, 1990). Bayard found that, when asked to produce words with word-final /t/, the older group had significantly higher token value for [tʰ] than individuals in two younger groups. The latter groups exhibited a change which is rapidly becoming commonplace in NZE, which is to glottalise word-final /t/ as [ʔ]. This feature presented more commonly among Bayard’s younger groups, 27% and 29% of total tokens were the glottal realisation respectively, while individuals in the older group showed only a 5% use (1990, p. 158). Several studies conducted on NZE have mentioned the change occurring with /t/, but all consider it a developing sound change (Bauer & Warren, 2004; Hay et al., 2008), and it is still too soon to consider it a proper allophone of NZE. However, it is a distinct possibility that this may occur (Bauer et al., 2007).

Intervocally, /t/ is more frequently becoming realised as the voiced alveolar tap [ɾ] aligning with AmE rather than the intervocalic glottal stop now a strong feature in some variations of BrE (Hay et al., 2008). A common example is bottle [bɔɾəl], or with l-vocalisation [bɔɾo]. The NZE articulation of a similar word, butter, is either [bɔɾə] or [brtʰə]. Two realisations are provided because the intervocalic tap is still in free variation with aspirated [tʰ] (Bauer et al., 2007; Hay et al., 2008), although the flap is increasing in frequency. /t/ can also occur over word boundaries where the /t/ is not in a stressed position, for example ‘get in’, [ˈgeɾɪn], but not in ‘a tall person’, [ˈətʰoːpəɹəɾəˈsam].

Like all varieties of English, SAE has distinctions between voiced and voiceless plosives. A feature which has been identified as characteristic of Broad SAE is the tendency toward producing unaspirated voiceless plosives in all phonological environments (Bowerman, 2004; Lass, 1987, 2002). Lanham (Lanham, 1978) says that this feature is connected regionally with all classes of people in the Cape and any other place where extreme SAE occurs. Lanham continues to suggest that the strong and
lengthy interaction with Afrikaans in the Cape is the main reason for English having acquired this feature. Lass and Wright (1986, p. 212) claim that this extended interaction between English and Afrikaans is ‘perhaps the best candidate of the lot’ when attempting to explain the presence of unaspirated plosives in SAE.

Another feature of SAE is the tendency to devoice final voiced consonants. This is by no means typical of SAE, as all varieties of English devoice to some degree (Branford, 1994). However, the situation in SAE is stronger due to the influence, once again, of Afrikaans. Final devoicing is a common feature in Afrikaans and the interaction it has had with English may have led to some form of accommodation in certain regions. An example given by Wells (Wells, 1982, p. 619) is that the word defeated may end with [t], giving [dəˈfiːtət].

The stop consonants in Afrikaans are always unaspirated (Donaldson, 1993; Watermeyer, 1996). The voiceless alveolar stop, /t/, has two allophonic realisations in Afrikaans, [t] and [c]. The first is the unaspirated variant which occurs in all positions. The second is restricted to the specific environment of the diminutive –tjie. Some examples of /t/ in different positions are dit [dɪt] (it), tussen [tœsən] (between) and water [vatər] (water). An example of /t/ in the diminutive form is potjie [pɔ:`i] (little pot).

The voiceless bilabial stop /p/ is always unaspirated in Afrikaans to be realised as [p]. Examples are punt [pœnt (point)], koppe [kəpə] (heads) and loop [loəp] (walk).

The voiceless velar stop /k/ has two realisations in Afrikaans, [k] and the palatal variant [c]. The plosive /k/ is always unaspirated as [k] in all positions except in environments where it assimilates through interaction with the following vowel to become [c]. The latter allophone is formed when /k/ is followed by a front close vowel. Kat [kat] (cat) and plek [plek] (place) are illustrations of the first variation and examples of the second are kier [cir] (crack) and kuur [cyːr] (cure).
Afrikaans, like other West Germanic languages, with the exception of English and Yiddish (Watermeyer, 1996), has a strong morphophonemic obstruent devoicing rule which results in all word-final voiced stops being unvoiced (Van Rooy, 1999; Wissing & Zonneveld, 1996). The consonant /d/ is devoiced to [t] and /b/ is devoiced to [p]. Examples of this rule in action appear in bed [bet] and web [vep]

The process of forming new words by compounding is prevalent in Afrikaans. When this occurs to a word with a final voiced plosive, the above rule remains and the plosive is devoiced although it is no longer in the word-final position. It is, however, still syllable-final, e.g. gesond [xə‘sɔnt] + heid [ɦeit] forms gesondheid [xə‘sɔntheid, xə‘sɔntfeit].

Speakers of AfrE will often produce unaspirated stops. This feature is salient in Afrikaans and is often produced inadvertently in the speaker’s idiolect of L2 English. Watermeyer (1996, p. 107) focused on these word-initial plosives and noted that half of her participants showed a definite tendency to use when speaking English the unaspirated allophones, [p], [t], [k] rather than the aspirated versions, [pʰ], [tʰ], [kʰ].

The process of word-final devoicing, common in Afrikaans, is prevalent in the L2 English dialect of its speakers. Watermeyer (1996, p. 108) holds that this phenomenon is more common at the lower end of the proficiency scale, although it does occasionally occur in the speech of near-native L2 speakers, e.g. Namaqualand [namakwalant]. Lanham (1967, p. 103) also mentions the rule of devoicing in AfrE, stating that there is substitution of voiceless /p, t, k/ for voiced /b, d, g/ in word-final positions.
3.2 The consonant /r/

NZE is generally accepted to be non-rhotic, similar to the other Southern hemisphere varieties of SAE and AusE. This means that /r/ is not pronounced post-vocally in syllable-final position as a rule, providing examples such as work [wɜːk], car [kʰeːr], causing homophones such as caw [kʰɔː] or [kʰə] and core [kʰeː] or [kʰə], and caught [kʰɔːt] and court [kʰɔːt]. However, there are some exceptions where /r/ is produced post-vocally, such as in the name of the letter ‘r’ in the alphabet (Bayard, 1996; Bell & Kuiper, 2000). In NZE, /r/ is articulated slightly retroflexed with the tongue tip raised behind the alveolar ridge when preceding a vowel and is transcribed as [ɹ].

When present in consonant clusters, the /r/ affects the overall quality of the cluster and it becomes an affricate (Hay et al., 2008), thus /tr/ is realised as [ʧɹ] and /dr/ as [ʤɹ]. This gives examples such as tree heard as ‘chree’ [ʧɹiː] and dragon as ‘jragon’ [ʤɹæɡən].

A common feature of NZE is the characteristic linking-r which appears intervocally across word boundaries. The /r/ in fire is not normally pronounced, yet in combination with alarm, speakers produce [faeɾaɪm]. This realisation of /r/ is known as linking-r and considered a solid feature of NZE (Bauer & Warren, 2004; Bell & Kuiper, 2000; Hay et al., 2008). The [ɹ] connects the two words or is present in the spelling of the word. An example of the latter would be the verb bear /bɪər/ when used in the continuous to form bearing [bɪəm]. The /r/ is absent when word final, but is articulated to accommodate for the following vowel of the –ing- morpheme as its position changes from unrealised post-vocalic to necessary pre-vocalic.

A feature similar to the linking-r is the inclusion of an [ɹ] where none is present in the spelling or required across a word boundary. This is sometimes known as an

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7 The closer realisation of /ɪə/ in bear is considered normal in NZE, due to the merger of NEAR, /ɪə/, and SQUARE, /eɪ/ or /ɛə/, on NEAR (Gordon, 1989; Holmes, 1995).
intrusive-r. An example provided by Hay et al. (2008) is the verbs paw and pour which are both articulated as [pʰɔː] or [pʰɔːə] in NZE and they are both pronounced in the same way when in the continuous form: [pʰɔɹɪŋ]. Another example in NZE (but not in SAE) is the pronunciation of drawing – [dʒɔːɪn].

New Zealand English is distinctive for its relative lack of regional variation. A study by Bayard (1996) showed that the Southland accent was the only NZ accent correctly identified by the majority of the participants in his survey because of the rhotic Southland Burr. Trudgill et al. (2000) found that at least 93% of UK speakers between 1946 and 1948 used rhotic forms which have likely survived in modern New Zealand English (Bayard & Bartlett, 1996). The rhotic form in Southland NZE is now decreasing in prevalence, but Trudgill (Trudgill, Gordon, & Lewis, 1998) does not suggest an explanation as to why the prevalence of this feature is in decline. Although, anecdotal evidence would suggest that the prevalence of post-vocalic /r/ specifically following the NURSE vowel is increasing throughout the country.

Post-vocalic realisation of /r/ is variable even within Southland (Bartlett, 1992; Bayard & Bartlett, 1996) where age, class and geographic origin all influence the prevalence of /r/ within individual’s speech. Older generations were almost fully rhotic in their speech in comparison with the younger generation in the same geographical area. Working class males and females exhibited a much higher degree of rhoticity than their middle class counterparts (94% versus 26%) and rural more so than urban dwellers (95% versus 50%) (Bayard, 1995, p. 154). Rhoticity in the younger generation of Southland is more specific in that it occurs mainly in conjunction with the NURSE vowel /ɜ/, NZE [ɵː], which is neutralised to [ə] in the environment. This gives rhotic realisations in words like hurt [hət], bird [bəd], work [wɜːk], nerd [nəd], earth [əθ], but non-rhotic forms in father [faːðə], court [kɔːt], mart [maːt], or fear [fiə].
Little rhoticity is heard outside of Southland, and often speakers will change the way in which they talk to hide the ‘rolling-r’ (Gordon & Deverson, 1998) as it is stigmatised by other NZE speakers (though often humorously) and it is always a telling sign of origin.

In SAE /r/ is produced as a postalveolar approximant, [ɹ], in Cultivated and General varieties. In Broad SAE, /r/ can become a tapped [ɾ] or a trilled [r]. A trilled realisation is a common marker of Afrikaans English, although the use of it may stigmatise the speaker as speaking a broader accent. Lass (1995) also notes a tendency among older Cultivated speakers to tap their /r/ when it occurs intervocally in words such as very [ve ri]. This feature is becoming rarer as these older speakers slowly disappear. A newer feature of “r” which has appeared in the speech of female general speakers is the production of a trilled [ɾ] when using emphatic or expressive styles. Such realisations are most common in words such as scream [skr:i:m], grotty and crazy (Bowerman, 2004).

SAE, like NZE, is generally non-rhotic (Bowerman, 2004; Branford, 1994). Lass (2002) observes that post-vocalic /r/ can be seen in Broad varieties of SAE and is one of the monoliths by which varieties within the Broad spectrum can be distinguished; the more environments within words /r/occurs, the broader the accent of the speaker. Even in the non-rhotic varieties of SAE, post-vocalic /r/ can occur. This is restricted to Afrikaans loanwords such as Afrikaners or apartheid which have been incorporated into everyday language. A new trend of postvocalic /-ɾ/ is appearing in the younger generation of General speakers influenced by a strong American presence in the media (Esteves & Hurst, 2007).

Postvocalic /-ɾ/ can appear in the speech of some speakers across a word boundary when there is an underlying /r/ in the first element, e.g. for a while. Bowerman
(2004) claims that intrusive /r/ is not productive in any environment in SAE and this flows on to linking /r/. There are three common processes which enable linking /r/ to be avoided. Taking the common example of law and order, these are: vowel deletion [lo:no:da], use of a corresponding glide [lo:*ono:da], or use of a glottal stop [lo:?ono:da] (Bowerman, 2004; Lass, 1987).

Traditionally in Afrikaans, /r/ is an alveolar trill which may be realised as an alveolar flap [ɾ] should only single contact be made during articulation. This articulation is the same in all positions within a word. Dialectal variation occurs with ‘r’ and in the Cape some speakers may brei– a process involving a uvular trill [ʀ] or uvular fricative [ʁ]. This is a marker of southern Afrikaans and often (although not invariably) identifies a speaker as coming from the Cape area, especially the region around Malmesbury.

The /r/ phoneme in AfrE is produced differently than in SAE in that it is often articulated with an alveolar trill [ɾ] or tap [ɾ]. Watermeyer notes that in her study that many Afrikaans English speakers still realised the /r/ phoneme as a trill or tap, regardless of their proficiency in English. She suggests that the presence of [ɾ, r] does not correlate with the proficiency of the speaker. This [ɾ] can be produced in word-initial environments, within a consonant cluster, or inter-vocally, but never word-finally.
3.3 The fricative /h/

There is little in the current literature which refers to the voiceless glottal fricative in modern New Zealand English, except that it exists (Gordon & Deverson, 1998; Hay et al., 2008). There are records of h-dropping, hypercorrection, and over-aspiration in the early days of New Zealand English. The process of h-dropping was present in the recordings of the ONZE (Origins of New Zealand English project) data although it was not present in the speech of all New Zealanders at the time (Gordon, 1998). Speakers of contemporary NZE do not exhibit this phenomenon as it was labelled a ‘problem’ which was systematically removed through schooling so that by the turn of the twentieth century, it was all but eradicated (Trudgill et al., 2000, p. 309). Over-aspiration is mentioned in a passage from *The Triad* in 1910 written by a Mr Andrews:

With regard to “h” which is so commonly misplaced in English as a sin of both omission and commission, I have never come across a boy, born and educated in New Zealand, who had any great difficulty with this refractory letter. He rather overdoes the sound, if anything, triumphing over the obstacle so vigorously the victory then becomes defeat … It would almost make the hearers think that the ancestors of the New Zealand had been dropping “h”s for generations, and now he is engaged in picking them up, several at a time.

*(The Triad, 10/8/1910, p. 37 as cited in Gordon, 2009, p. 39)*

Branford (1994) and Bowerman (2004) both mention the voicing of /h/ in broad varieties, and Branford suggests its relation to the Afrikaans [fi] which is the only realisation of /h/ in Afrikaans. It is never dropped initially in stressed environments although the voicing can give the perception of /h/-dropping to speakers of other
dialects of English. Lass and Wright (1985, p. 213) point out that ‘[t]here are no other dialects of English that have [ɦ] ... and South African (English) [ɦ] has precisely the sociolectal distribution that we could expect from an Afrikaans source’.

In General and Cultivated SAE, /h/ is always pronounced as the aspirated glottal fricative [h], in most environments (Bowerman, 2004; Lass, 1995).

Afrikaans does not have the sound /h/ natively. The voiced glottal fricative, /ɦ/, is characteristic of the language. Examples include words like huis [ɦœis] (house), haal [ɦœl] (hale), Johannesburg [jɔɦanəsbœrx] and mooilikheid [moːiləkʰəit] (beauty) are examples of /ɦ/ in different environments and demonstrate its ability to be placed word-initially, intervocally and syllable-initially. Afrikaans, like English, does not allow h to be articulated word-finally.

Donaldson (1993, p. 14) mentions a tendency for the [ɦ] to be elided when it occurs in an environment following a consonant, over both word and syllable boundaries, e.g. vergetelheid [fərˈxatələit] (oblivion), and waar werk hy? [vaːr vɛːrkəi?] (where does he work?).

There is also the tendency for [ɦ] to assimilate in place of articulation to produce [j] when followed by [ɛ] and [eə]. This process is common during natural, quick speech and produces words like the Northern Cape Afrikaans help [jɛlp] (help), and hele tyd [jeəle təit] (entire time).
Chapter 4

The Description of Vowels

4.0 Overview

This chapter introduces the vowels of NZE, SAE, Afr and AfrE. The objective of this chapter is to provide a description of each vowel that is relevant to this thesis and to continuing laying a foundation to answer research question 1 by describing which vowels were chosen for analysis and how they compare between the dialects and languages. This chapter is presented by vowel, with the articulations common to each dialect explained together for ease of comparison. The vowels which are the focus of this thesis are the short vowels KIT, DRESS, TRAP and LOT, and two long vowels, GOOSE and START. The second part of the quantitative part deals with vowels. In NZE, these vowels are realised as [ɛ], [e] and [ə], [ʊ], [uː] and [ɐː]. The phonological system of AfE does not have a LOT category and Afrikaners often substitute the THOUGHT class in English words that contain LOT, e.g. off [ɒf] is produced as [of]. Afrikaans speakers tend to use the low back vowel [aː] in words that contain the START vowel. NZE speakers almost always centralise the KIT vowel to a schwa, and while Afrikaans has a schwa category, L1 Afrikaans speakers will often exhibit the KIN-PIN split which occurs in South African dialects of English. In order to account for this split, one KIT analysis was completed. Only tokens of KIT which would present a closer

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8 In NZE, the merger of the START and BATH vowels are normally denoted through the use of the lexical class, START/BATH. However, for convenience, this study uses simply START because the BATH vowel is not different from START in NZE.
variant in SAE and AfrE, while NZE maintained its centralised articulation of KIT, were chosen (environments are provided in §7.2.5). This study investigated whether the ANZ cohort had raised or lowered these vowels, and/or articulated them with greater fronting or by tongue backing.

A complete table is provided below of the vowels which are considered in this thesis. For ease of comparison, Wells’s lexical sets and the general variations of each dialect have been used. Broad and Cultivated variants are discussed in the relevant sections. Lanham’s (1962) personal transcription style is used to discuss SAE pronunciation. Conventional IPA symbols are provided to assist understanding of Lanham’s personal style. Phonological processes are explained where appropriate in accordance with the language or dialect that is influenced.

<table>
<thead>
<tr>
<th></th>
<th>NZE</th>
<th>SAE</th>
<th>AfrE⁹</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIT</td>
<td>ə</td>
<td>ɪ / ɪ́</td>
<td>ɪ / ə</td>
</tr>
<tr>
<td>DRESS</td>
<td>e</td>
<td>e / ɛ̝</td>
<td>ɛ</td>
</tr>
<tr>
<td>TRAP</td>
<td>ɛ</td>
<td>æ</td>
<td>a</td>
</tr>
<tr>
<td>LOT</td>
<td>ɒ</td>
<td>ʊ̈ / ɔ̈</td>
<td>-</td>
</tr>
<tr>
<td>START</td>
<td>ʉː</td>
<td>ɑː</td>
<td>ɑː</td>
</tr>
<tr>
<td>GOOSE</td>
<td>ʉː</td>
<td>ʊː / yː</td>
<td>ʉː</td>
</tr>
</tbody>
</table>

![Chart 4 Comparison of Vowel Sets](adapted from Bowerman, 2004; Donaldson, 1993; Gordon et al., 2004; Lass, 2002)

⁹ Afrikaans vowels are not included in this chart because they do not fit into Wells’s lexical sets. Refer to Chart 7 for Afrikaans vowels.
This chapter describes three main varieties of SAE. These are: Cultivated, General and Broad (Bowerman, 2004; Branford, 1994). The Broad variety is possibly influenced most by contact with Afrikaans (Bowerman, 2004; Branford, 1994), although evidence in this is lacking. Lanham and Traill (1962), use different labels for these varieties:

1. South African Received Pronunciation ‘A’ (Cultivated)
2. South African Received Pronunciation ‘B’ (Between Cultivated and General)
3. Non-South African Received Pronunciation (General to Broad)

For the purpose of this thesis, the terms Cultivated, General, and Broad are used. Any use of Lanham and Traill’s categories is specified. Chart 6 below provides an easily viewed comparison of the different varieties of SAE, focussing on the vowels in this thesis.

<table>
<thead>
<tr>
<th>Lexical Set</th>
<th>Cultivated</th>
<th>General</th>
<th>Broad</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIT</td>
<td>ɪ</td>
<td>ɪ̈</td>
<td>ɪ̈  ~ ə</td>
</tr>
<tr>
<td>DRESS</td>
<td>ɛ ~ ɛ</td>
<td>ɛ ~ ɪ</td>
<td>ɛ ~ ɛ ~ ɪ</td>
</tr>
<tr>
<td>TRAP</td>
<td>æ</td>
<td>a ~ æ</td>
<td>æ ~ ε</td>
</tr>
<tr>
<td>LOT</td>
<td>ō</td>
<td>ō ~ ā</td>
<td>ō</td>
</tr>
<tr>
<td>CLOTH</td>
<td>ō ~ ɔː:</td>
<td>ō ~ ʌ / ɔ:</td>
<td>ō / ɔ:</td>
</tr>
<tr>
<td>START</td>
<td>ɑː ~ ə</td>
<td>ɑː</td>
<td>ɑː ~ ɒː? ~ ɔː:</td>
</tr>
<tr>
<td>GOOSE</td>
<td>ʊː</td>
<td>ʊː ~ ʏː</td>
<td>ʊː</td>
</tr>
</tbody>
</table>

*Chart 5 Monophthongs in SAE* (based on Bekker, 2008; Lass, 2002)
In the case of Afrikaans and Afrikaans English, there are currently two ways of presenting Afrikaans phonology, especially the vowels of the language - that of Bruce Donaldson (1993) or that of the traditional Afrikaans linguists, demonstrated here through in the works of Anna Coetzee (1981a).

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<thead>
<tr>
<th>Anna Coetzee (1981a)</th>
<th>Bruce Donaldson (1993)</th>
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<td><strong>Kort Vokale</strong></td>
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This study will use Donaldson’s description of the sounds of Afrikaans for ease of comparison with the dialects of English in this study unless otherwise specified. There appears to be a concerning lack of resources considering Afrikaans English a
separate L2 variety (with the exception of Watermeyer, 1996). For this reason, the phonological system of Afrikaans is provided as through L1 transfer, vowels in Afrikaans English might be similar.

4.1 The Short Vowels

This section describes the short vowels in the current phonological systems of NZE, SAE and AfrE. Please refer to Chart 4 for a visual comparison of the vowels. The first section explains the process which has developed the characteristic vowel sounds of NZE and SAE – the Front Vowel Shifts. It focuses on the vowel classes of KIT, DRESS, TRAP, and LOT.

4.1.1 Front Vowel Shift in NZE

This refers to the clockwise movement of short front vowels in the Australasian dialects of English. The exact origins of the higher realisations are unknown but there are several studies which endeavour to locate the reason for this shift. A pull chain with the centralisation of KIT has been suggested (Batterham, 1996; Maclagan, 2000) with the centralisation of the KIT vowel in NZE initiating the raising of lower vowels to accommodate the space above them. Batterham (1996) provides support for this in her PhD research in which she found a more advanced shift toward centralising the KIT vowel [ə] or [i] from her participants over all age groups whereas there were very few tokens which exhibited a raised variant of the TRAP vowel.

On the other hand, Bauer (1979, 1992) and Trudgill et al. (1998) suggest a push chain initiated by the raising of the TRAP vowel. This higher vowel [ɛ] would have forced the DRESS vowel to be raised in order to maintain the distinction between TRAP
and DRESS. Gordon et al. (2004) used historical data to show that the settlers to New Zealand brought raised realisations of TRAP, [æ] and [ɛ], and DRESS, [ɛ] and [e], which continued to be raised following settlement, while KIT centralisation was only beginning to occur. Their claim is supported by Langstrof (Langstrof, 2006a) who provides acoustic analyses of other historical data to show that there were individuals who exhibited raised variants of TRAP and DRESS, and did not produce a centralised KIT vowel. There were no individuals who realised a centralised KIT vowel without having raised variants of TRAP and DRESS. It was also shown that no speaker maintained equidistance between their vowels, which provides support to the claim of a sequential push chain (Gordon et al., 2004; Langstrof, 2006a).

Figure 1 Front Vowel Shift in NZE
4.1.2 Front Vowel Shift in SAE

In a process similar to what NZE underwent, the vowels of SAE changed. The short front vowels of SAE (TRAP, DRESS and KIT) underwent raising or centralising (Lass & Wright, 1986). This phenomenon occurs in broad and general SAE, but it not in the speech of speakers of Cultivated SAE (Mesthrie, 1993).

In a similar manner to NZE, there was a chain shift in these vowels which saw TRAP raise to a similar realisation of DRESS at /ɛ/, DRESS rose to /e/, and KIT centralised towards /i/ or /ə/ (see Fig. 1 for an illustration of this process). Originally, it was considered that SAE’s close and lengthy contact with Afrikaans was responsible for the changes observed, as Afrikaans has the stressed central vowel, /ə/. However, Lass and Wright (1986) show beyond doubt that the raised vowels were a result of an extremely complex and variable situation; including raised, unaffected and lowered versions of all the vowels (Lass, 2002). All of these variations were already present in the dialects which the settlers brought with them from England and other home countries.

Evidence for this shift is provided in the unlikely form of an uneducated settler, Jerimiah Goldswain (Lass, 2002; Lass & Wright, 1986; Mesthrie, 1993). Goldswain maintained a diary of sorts in which he wrote of his experiences living in the Eastern Cape from 1820 onwards. He used his own spelling of words based on his pronunciation and his speech displayed all the variation mentioned above.

4.1.3 KIT

This section describes the short front vowel KIT and how the Front Vowel Shift has caused a dramatic change in their articulation in the dialects.
In New Zealand, a closer and fronted realisation of the KIT vowel identifies a speaker as foreign. The KIT vowel is arguably the most distinct characteristic of NZE and in the words of Woods (2000, p. 115) it is ‘the sound which stamps speakers of NZE’.

The KIT vowel in NZE has become notoriously centralised (Bauer & Warren, 2004). This change in quality has seen the KIT vowel become near indistinguishable to the similarly unstressed COMMA vowel for speakers of NZE. The exact transcription for the realisation of KIT is unclear as many possibilities are provided by different linguists; Warren and Bauer (2004) use [ə] [ə] or [a]; Hay et al. (2008), [a], and Gordon et al. (2004), [ɪ]. All transcriptions describe a centralising of the RP KIT vowel to varying degrees. Most academic discussions on the KIT vowel assume that it has fully merged with schwa in NZE (Bell & Kuiper, 2000) and is commonplace among speakers in New Zealand. This is accepted cautiously by Bell (1997) who conducted his own studies into the prevalence of centralised KIT in NZE and found that the merger is complete for speakers in the Porirua area based on the data he collected from the Porirua Project (for more on the Porirua Project, see Bell & Holmes, 1992; Holmes, Bell, & Boyce, 1991). The situation, however, is not that simple as there appears to be variation found throughout New Zealand. Woods (2000) found in her cross-generational study that her youngest participant employed the centralised variant of the KIT vowel, /ə/, in most linguistic contexts unlike her older cousins who would range between [ɪ ~ ɪ̞ ~ ə] dependent upon the linguistic context in which the vowel occurred. In another study, Trudgill et al. (1998) mentioned three realisations of the short vowel, one being the RP [ɪ]. A more recent study conducted by Bell and Kuiper showed that only 302 of 1000 speakers employed the centralised variant, with the greatest frequency being in the 15-24 age group (2000, p. 75).
Good examples of the centralised KIT vowel are words like *pig* [pəɡ] and *ship* [ʃəp]. The famous phrase bandied between NZE speakers and AusE speakers, *fish and chips* ['fəʃən.ʧəps], illustrates the articulation of this vowel in NZE.

The chain shift associated with New Zealand English vowels took place in South Africa as well, pushing the short front vowels in a clockwise direction. The quality of the KIT vowel is a strong social variable in SAE as each social class has quite different realisations. This is made more intriguing by the KIN-PIN split phenomenon, unique to SAE. Branford (1994) poses the existence of three groups surrounding the KIT vowel in SAE: the ‘bin group’, the ‘kin group’ and the ‘pik group’. The first two, caused by allophonic variation are explained below. The third group, ‘pik’, is a group made up of several loanwords of Afrikaans origin which have been incorporated into SAE. These words, such as *pikkie* (a little chap), all contain schwa as their vowel, e.g. [pək] or *skrik* [skrək] (to be frightened). Speakers of cultivated SAE will retain the near-close, near-front unrounded vowel [ɪ] in all environments (with the exception of some loanwords), maintaining a strong link with the RP equivalent.

The KIN-PIN split begins to appear in the speech of both General and Broad speakers. The ‘complex allophonic variation’ associated with the split causes the words *bit* and *hit* no longer to rhyme (Lass, 1987, p. 304). In the General variety, the two variations are [i] and [ɪ]. The environments in which [ɪ] is retained are initially, proceeding /h-/ , any environment neighbouring a velar consonant and before palatal-alveolar fricatives [ʃ] and [ʒ] (Bekker & Eley, 2007; Bowerman, 2004). In other environments, the centralised [i] will appear. Lass (1990) examines the possibility of KIT becoming more centralised towards [ə] preceding /r/ , and /l/ or in labial environments. Speakers of Broad SAE also exhibit the KIN-PIN split but are distinguished by even greater distances between their allophonic nuclei which are [i] and [ə]. Bowerman states
that, although the split does not occur in Cultivated speech, it is a “reliable sociolinguistic marker for White South African English in general” (2004, p. 936).

In the Broad variety, in environments preceding /l/, [i] can be pushed as far back as [u̯] (Bowerman, 2004) or [ĩ] (Lass, 1987) producing a similar realisation to that of NZE in some cases (e.g. milk [mũlk] or [mǐlk] and producing near homophones of words that are minimal pairs in other varieties, for example: pill – pull, hill – hull.

Speakers of AfrE tend to separate the vowels further, so that bit is either produced as [i] or [ə] and the KIT vowel in hit undergoes raising and lengthening to produce [iː] (Watermeyer, 1996).

Watermeyer (1996) found that twelve of her twenty-four participants regularly displayed this extended KIN-PIN split, while another four used it at least once in their speech sample.

AfrE does not display the same process as SAE with the Front Vowel Shift. There is no tendency to raise TRAP to [ɛ], initiating a subsequent push chain which terminates with a centralised KIT [ə]. Neither does AfrE exhibit the same Broad SAE trait of raising [ɑː] to [ɔː]/[oː]. Speakers using AfrE may, however, change [ɑː] to [aː] in words like barn [baːn].

The analysis of this study uses tokens which would generally present a closer variant of KIT in SAE and AfrE. This is explained more in the methodology (§6.6) and reviewed in the appropriate section of the analysis (§7.2.5).
4.1.4 DRESS

The DRESS vowel in NZE has undergone the same chain movement as KIT and TRAP in the front vowel shift towards a closer realisation of DRESS to [e] in NZE speakers and often leads to complaints of misunderstandings between NZE speakers and other English speakers abroad. As mentioned previously, the more close variant of DRESS was brought to New Zealand originally by immigrants, mostly from the South East of England and thus, it can be said that NZE exhibits a conservative form of English as both older types of “RP and Cockney tend to closer varieties than are now general” (Wells, 1982, p. 128; see also Upton, 2004).

A study on the merging of the acoustic space of DRESS and FLEECE\(^{10}\) in NZE by McKenzie (2005), found that DRESS was often realised in the same acoustic space as FLEECE and in some speakers it was more raised. The rise of DRESS was affecting the articulation of the FLEECE vowel with speakers diphthongising FLEECE in reaction to the invasion of acoustic space. The FLEECE vowel begins further back in the mouth and ends high and front. Some examples which provide simple misunderstandings are *bet*, often confused with *bit*, *net* often confused with *knit*, and *pen* often confused with *pin*. McKenzie also notes possible miscommunication between NZE speakers and speakers of other English dialects with /i:/ and /e/ in NZE with speakers of other dialects such as ‘ten’ being mistaken for ‘teen’ (2005, p. 13).

Another vowel affected by the chain shift, the DRESS vowel in SAE is commonly produced as a mid-close front unrounded vowel, [e]. There is little sociolinguistic variability associated with this vowel and [e] seems fairly consistent geographically over South Africa (Bekker & Eley, 2007; Bowerman, 2004; Branford, 1994; Lass, 2002).

\(^{10}\) FLEECE here is used to illustrate the changes characteristic of DRESS in NZE. FLEECE, due to restrictions in time and space, is not a focus in this thesis.
Branford adds that older speakers of Cultivated SAE may retain the more open [e], more approximate to RP. He further adds that the raised [e] is more common with some speakers in the broader accents of the Eastern Cape where [e] is raised to [i] in words like yes [jis] (1994).

Lanham and Traill (1962) describe both SARP A and SARP B as containing the cardinal [e] not [ɛ]. Further discussion later in the article describes the articulation of /e/ as “represented by [E]41/51, or even as high as [E]41” (1962, p. 192). This places the articulation given as between the cardinals 2 and 3 which can respectively be rewritten as [ɛ] and [e].

In Afrikaans, the open mid-front unrounded vowel, as in bed [bet] and redding [redan] (rescue) in Afrikaans differs little from the British English equivalent although it can contrast strongly with NZE, /e/. This vowel is lengthened and nasalised in the speech of some individuals in environments preceding /ns/, as for example in mens [mɛ:s] (man) (Coetzee, 1981a) and venster -[fɛ:stər] (window).

Another process which is common in Transvaal Afrikaans (although not often present in Cape Afrikaans) is the lowering of [ɛ] to [æ] and the subsequent lengthening of the resulting vowel in environments preceding /-r + dental/ (s, z, t, d). A good example of this process is the word for horse, perd [pær:rt] and the word pers [pær:rs] for purple. Dialectally, Afrikaans speakers who originate from the Free State and what was the Transvaal will lower /ɛ/ when it precedes /k/, /g/, /l/, /t/. Donaldson admits there is no set rule to predict when the vowel will be lowered and lengthened and provides the example of the word stem trek (move). In the verbs trek (move), and vertrek (depart), the /ɛ/ is lowered and lengthened to [æː], however, in the corresponding nouns Die Groot Trek and vertrek (depart, departure), it is only lowered. In the word for work, werk, the sound in both the noun and the verb is lowered and lengthened to [vær:k]
4.1.5 TRAP

TRAP has been identified as the first vowel to be raised in NZE, forcing the other vowels to move sequentially as each lower vowel begins to invade the acoustic space of the vowel above it. Evidence supporting this push chain over other KIT pull chain theories is provided in Gordon et al. (2004) with a description of the results taken from the Survey of English Dialects which provides dialectal information from speakers who were living in New Zealand from as early as 1870. The push chain theory is further supported by Langstrof (2006b). The data indicate that a raised TRAP vowel came with the settlers to New Zealand in approximately equal proportions to the more open TRAP variant. Gordon et al. show that of a total 5,706 tokens of the TRAP vowel, 2,334 were relatively open [æ], 1,294 were a closer [æ] and 2,078 were a yet closer [ɛ] (Gordon et al., 2004, p.104-5). This hypothesis supports the proposition provided by Trudgill et al. (1998) that TRAP-raising was already apparent in their early stages of New Zealand English.

The TRAP class in SAE has significant implications (Lass, 2002) as it is a stereotypical marker defining the border between General and Broad varieties. According to Bowerman (2004) and Lass (2002), the TRAP set may be realised as a slightly raised mid-open front unrounded vowel [æ] for Cultivated and General speakers that does not approach [ɛ]. Branford (1994) and Bekker and Eley (2007) also mention the quality of [æ] being typical of SAE while [ɛ] is associated with Broad varieties. Bekker (2008) describes a range of [æ] to [ɛ].

Lass (1995) also makes an observation about the process of TRAP-lengthening, whereby the vowel is lengthened in quality in certain environments. In SAE these environments are those in which the vowel precedes a voiced stop or a nasal. TRAP-lengthening is a common process in AmE and is currently being studied in NZE,
although data on the process is relatively scarce at best (please refer to the section on NZE for more information).

### 4.1.6 LOT

The final vowel is the vowel classified as LOT. NZE LOT was originally described by Wells (1982) as similar to the RP low, back, rounded vowel /ɒ/. Data of the speech of NZE speakers born between 1850 and 1889, shows an unrounded variant of LOT, /a/, in the phonological systems of the some speakers (Trudgill et al., 1998). Trudgill et al. show that 47% (p. 314) of their participants used the unrounded variant. However, in modern NZE, the unrounded variant no longer exists and only the slightly raised, rounded variant, [ɒ’] remains (Allan & Starks, 2000, p. 81). A study of LOT in NZE by Easton and Bauer (2000) found that there was great variation in the realisation of the vowel. They found that there was no correlation between age, ethnicity or gender and the realisation of LOT in the speech of their participants (2000, p. 107).

The LOT vowel in SAE has a range of realisations between [ɪː] and [ɔ] (Bowerman, 2004, p. 937) whereas Brandford (1994) and Lass (2002) indicate a change in the quality of LOT to a more unrounded and centralised variant [ɪ] and report geographical variations from [o] in the Eastern Cape to [ã] in Natal (also mentioned by Bekker, 2008, and Lanham & Traill, 1962) and among “younger Cape Town speakers” (Bowerman, 2004, p. 937). Lanham and Traill (1962) believe there is very little variation in this vowel across the accents they researched but neglected to mention geographic areas affected by this variation.

There is a tendency in some varieties of SAE (and in AfrE) to stress the initial vowel in words such as confess, condemn and computer and speakers will use a vowel with a LOT-like quality rather than the RP unstressed [ə] (Wells, 1982, p. 300). Branford
(1994, p. 476) suggests that the occurrence of this different stress pattern in SAE is either a residual Northernism or a hypercorrection commonplace in SAE.

The phonological system of Afrikaans has the open mid-back rounded vowel, [ɔ]. Examples include op [ɔp] (up), romp [ʁomp] (hull). It must be noted that this sound is distinctly different from the corresponding English short “o” which is pronounced [ɒ], as in pot [pɔt] (pot). This vowel is also lengthened and nasalised in specific environments, e.g. ons [ɔs] (us/we) and ongeluk [ɔxələk] (accident) (Coetzee, 1981a).

4.2 Long Vowels

The following section details the long vowels chosen for this thesis. These are START and GOOSE. While the decisions behind the selections of these vowels are explained further in Chapter 6 (see §6.6), START and GOOSE were primarily chosen for their differences in articulation between the dialects in the study.

4.2.1 START

The START vowel in New Zealand English is characterised by its move towards a more central articulation. This fronted realisation has been considered a feature marking a major distinction between Southern English varieties and NZE. As shown by Wells (1982) and Roach (2004), the START vowel in RP has the features open, back and unrounded.

While the START vowel was not originally a long vowel, it is now considered as one in both RP and NZE due to lengthening of the TRAP vowel in the seventeenth century /a/ due to the process of Pre-R Lengthening (Wells, 1982), another phonemic element formed; /aː/. As mentioned above, the START vowel in NZE is somewhat more
central than the START vowel of RP. It has the features open, central and unrounded, producing a variation between [a] to [ʰɑ] (Gordon et al., 2004).

Classified as a low, back unrounded [ɑː] in SAE by Bowerman (2004, p. 937) in most varieties except for the most cultivated, the START vowel in SAE is important because of its distinctive sociolectal variations. It is considered a “clear and distinguishing feature of SAE” by Bekker and Eley (2007, p. 109) who also indicate the general SAE START as [ɑː] and, along with Lass (2002), provide a range for the Cultivated variety from [ɑ̈ː] to [ɑː]. Lass (2002) links the tendency to produce [ɑ] to male speakers and the younger generation.

Speakers of Broad accents who show a show tendency either to round the vowel to [ɔː] or to raise it to [ɔː] (Lanham, 1967; Lass 2002, Bowerman, 2004; Bekker & Eley, 2007). The latter realisation is a commonly-stigmatised stereotype used comically or to ridicule speakers of this dialect and is neatly illustrated in Malan (1975) in examples such as gimmia chorns, [ɡɪ̯mɪ:aːnts] “Gimme a chance”. This is also common in AfrE.

Originally an open front unrounded vowel, [ɑː] is similar to its Dutch predecessor. Afrikaans has moved the vowel farther back and now produces [ɑː:]. Donaldson retains the [ɑː:] transcription for the vowel. However, the present study uses [ɑː] to more accurately represent the sound articulated. Examples of this vowel are haal [ɦɑːl] (fetch or hail), maand [mɑːnt] (month) and staan [stɑːn] (stand), Vader [fɑ:ɗɑːr] (father) and tafel [tɑːfɑːl] (table).

Native Afrikaans speakers from what was previously the Transvaal region exhibit a tendency to round this vowel and make it higher, occasionally as far as [ɔː:]. This variation, originating in Pretoria, seems to be gaining momentum as it is spreading out from Gauteng, especially through the speech of younger speakers (Bowerman, 2004).
4.2.2 GOOSE

The GOOSE vowel in New Zealand English has a central realisation [u] or even a more advanced pronunciation, [ʉ]. It has also been noted by several researchers that the GOOSE vowel may be developing a diphthong-like quality in NZ English. Watson, Harrington, and Evans (1998) found that GOOSE was diphthongal in NZE, which agrees with the findings of Wells (1982), and Trudgill and Hannah (1985). Gordon et al. (2004), Bell and Kuiper (2000) and Hay, McLagan and Gordon (2008) agree that there are variants in the realisation of GOOSE from monophthongal [ʉː] to diphthongal [əi], or with different onglides, namely [ʉ̝ː] or [ʉː].

The GOOSE vowel is generally considered to be a close back rounded vowel [u:] but it is considered an important social variable (Lass, 2002). One of that ways in which Cultivated SAE is distinguished from other varieties by its tendency to retain the RP back quality of [u:] (Lass, 2002; Bowerman, 2004; Bekker & Eley, 2007). Branford (1994, pp. 480-81) mentions a centralised variant [u:ː] for cultivated SAE.

The vowel is fronted in General and Broad SAE to various degrees. Bowerman (2004) provides a fronted GOOSE [u:] for General and Broad varieties while Bekker and Eley (2007) state that these two dialects will never produce a GOOSE vowel with a quality further back than [uː] and provide a range spoken by the younger generation of speakers of General SAE [yː - ʉː]. There has been a tendency linked to amongst Afrikaans-English speakers to front and round GOOSE to the point where it is articulated as [yː], as in clue [klyː] (Watermeyer, 1996, p. 106).

Lanham and Traill once again diverge from the others by claiming a diphthongal quality to the GOOSE vowel in SAE. They describe it as “usually a vowel followed by a
back rising glide and not merely a ‘long vowel’” (1962, p. 199). Their evidence is
gathered from the increase in lip rounding towards the terminus of the diphthong [ʊu].

In Afrikaans, the close back rounded vowel, [u], is illustrated in words such as 
*boek* [buk] (book), *moeder* [mudər] (mother) and *soen* [sun] (kiss). This vowel undergoes
lengthening when followed by the sound [r], e.g. *boer* [buːr]. When in an unstressed
environment preceding “r”, the quality is not changed, e.g. *moeras* [muˈrəs] (swamp).

SAE dialects other than Cultivated have a tendency to front the GOOSE vowel to
[u] although they will still retain a distinction between [u] in *goose* and [ʊ] in *foot*. There
has been a tendency linked to Afrikaans-English speakers to front and round GOOSE to
the point where it is articulated as [yː], as in *clue* [klyː] (Watermeyer, 1996, p. 106). They
have another tendency to add extra lip rounding to and to front the FOOT\(^\text{11}\) vowel
(Bowerman, 2004, p. 937) in such a way that the distinction between the two vowels is
reduced or eliminated entirely: *cooks* [kyːks] and *loom* [lyːm].

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\(^{11}\) Once again, the FOOT vowel is not included in this thesis. It is used here for illustrative purposes.
Chapter 5

Language and Identity

5.0 Introduction

This chapter discusses some aspects of second language acquisition (SLA) and second dialect acquisition as relevant to the learning of English for the L1 Afrikaans-speakers. The following sections address both research questions 2 and 3 by giving background on phonological processes which might influence dialect change, separate from the influence of the identity of an individual. The concept of interlanguage is addressed, along with comments on factors relevant to this thesis, which influence the final attainment of an L2 accent, namely age, motivation, exposure, pronunciation, L1 transfer and social factors. The chapter also presents an outline of identity formation within the framework of language and Social Identity Theory (SIT). The concept of identity is explored, focussing on Norton’s (1997) concept of identity, investment and social belonging, and discussed in connection with the situation of the Afrikaans speakers in New Zealand. Finally, the chapter concludes with a discussion on the literature of identity and social categories, ethnolinguistic vitality of speech communities, and language egos of the Afrikaans speech community in New Zealand.

5.1 Second Language Acquisition

From around the early seventies, sociolinguistic studies started to focus on factors that assist speakers to determine the social background of interlocutors (Hymes, 1974; Tannen, 1990, 1994). Categories which researchers considered were: geographical,
educational, sexual and socio-economic, as well as whether the speaker was deemed to be likeable, reliable, trustworthy, etc.

Language is no longer considered separate from the identity of those who speak it. Vygotsky argued strongly that ‘the primary function of speech […] is communication, social contact’ (1962, p. 19). The relationship between language, social context and the social structure of speech communities strengthens the concept of ‘linguistic identity’.

There are concepts and theories within SLA that have formed the current field that linguistics knows today. Such theories like contrastive analysis eventually led to the concept of interlanguage and the notion of language transfer (not language interference). Other factors in SLA are explored such as motivation and exposure of both the L1 and L2 during L2 development. As described below, contrastive analysis assisted in building the platform from which interlanguage was formed.

5.1.1 Contrastive Analysis and Phonological Similarity

The transfer from the L1 to the L2 is predicted in contrastive analysis (CA). The early version of CA made the broad generalisation that all non-native deviations were due to interference of or negative transfer from the L1, especially in phonological systems. I refer to the notion of transfer beginning with Weinreich (1953), arguably the pioneer of the domain of languages in contact, who exemplified this philosophy in his work on interference on the phonotactic, suprasegmental and phonic levels. Although some of his notions of transfer were later contested, the original distinctions are still pertinent to this study.
Weinreich categorises the phonetic level into four separate categories:

1. *Substitution*
2. *Under Differentiation*
3. *Over Differentiation*
4. *Reinterpretation of Distinctions*

Substitution is the process in which a speaker transfers L1 pronunciation to the L2, e.g. an English-speaking individual uses aspirated plosives in place of Afrikaans unaspirated plosives when speaking Afrikaans. Under differentiation comes into play when an individual speaker utilises one sound where two are needed, e.g. a Japanese (or Zulu) speaker uses one liquid for both English /ɪ/ and /l/. Over-differentiation is the opposite of under-differentiation, and involves a speaker treating an allophonic difference in a language as a phonemic difference, e.g. an English speaker assuming that the allophones of /d/ in Spanish, [d] and [ð], are separate phonemes as in English. The reinterpretation of distinctions allows for situations, for example, in which a German speaker of English perceives the tense/lax distinctions in the vowels of American English as primarily quantitative rather than qualitative because quantitative distinctions are a feature of German (Major, 1994). Soon after Weinreich’s publication, Lado (1957) attempted to explain and predict all substitutions based on L1 transfer. Because early versions of CA could not in fact predict all L2 use accurately, a weaker version was postulated which attempted to explain substitutions after the fact (Wardhaugh, 1970). Regardless of which version of CA they worked with, researchers at the time believed unquestioningly that all non-native substitutions were caused by L1 transfer which allowed for all inference to be placed into the umbrella term of transfer.
In the 70s new research and questions by researchers began to reveal several problems with the CA assumption that all substitutions were due to transfer. Firstly, CA could not explain why some errors occurred whereas others did not. Secondly, there was an increase in awareness that substitutions could not be explained away by transfer (Briere, 1966; Nemser, 1971). For the initial problem, the only explanation that could be given at the time was that some speakers just happened to learn some habits while others did not.

Following this decade of upheaval for CA, the philosophy was refined and it incorporated the notion of similarity in an attempt to explain why some phenomena are more difficult than others to acquire: If phenomenon x occurs in L1 and y in L2, it is more difficult to learn y if x and y are very similar than if they are dissimilar (Major, 1994). For example; an English-speaking (Anglophone) individual learning the voiced, unaspirated /ɨ̊/ of Afrikaans will find it difficult due to its similarity to the English /h/. Another example which can be seen in the speech of some Afrikaans speakers in South Africa is the struggle to produce English dental fricatives /θ, ð/, which do not exist in the phonological system of Afrikaans and so speakers substitute /f/ and /v/, respectively.

In order to find out whether interference is more likely to occur on certain sounds, Wode (1981) attempted to classify sounds which would, and would not, transfer. He maintained that, if an L2 sound has certain similarities with a corresponding L1 sound, then it would have interference from the L1 phonological system, whereas sounds which do not share similar features will not be subject to L1 negative transfer. He also maintained that transfers would still occur; even involving sounds that are dissimilar to those in the L1, but that they would appear for different reasons. In a study of German second graders whose teacher spoke the Swabian dialect, Young-Scholten (1985) found errors in phonology and morphology in the language of
her participants. She maintains that interference will persist in the interlanguage of learners because of the similarity between phonological systems. These similarities can make it difficult to differentiate the sounds of each phonological system and L1 interference will occur in the L2.

Continuing the theme of phonological similarity, Flege (1987) formulated his equivalence classification hypothesis which holds that, amongst advanced speakers, non-equivalent sounds are learned more completely than equivalent sounds. For example, he found that L1 English speakers who were advanced learners of French were more successful in accurately producing French /y/, which has no English equivalent, than French /u/ which is similar to English /u/ (Flege, 1987). In another study, Bohn and Flege (1992) found that in German learners of English the accuracy in production of /i/, /ɪ/ and /ɛ/ (those sounds which are similar to sounds in English) did not differ much between experienced and inexperienced speakers. However, the vowel /æ/, which would have been a new vowel to the German speakers, was produced much more accurately by the experienced speakers who could produce an almost native-like vowel quality.

Contrastive analysis was not without its flaws. Studies, such as Kellerman and Sharwood Smith (1986), pointed out that the error prediction hypothesis of CA could not account for all errors in a L2 learners’ language production. Some predictions from CA were found to be wrong, such as pronoun placement between French and English learners (Lennon, 2008) or spelling errors from learners with different L1 orthographies (Major, 2008). In another criticism of CA, Johansson (2007, p. 314) holds that analysis of learner errors cannot be understood by a purely linguistic study and that it not a question of whether mother-tongue influence exists, but when and how. One a problem that CA could not account for was errors which the learners were exhibiting and into
this void the concept of language transfer entered, paving the way for Selinker’s (1972) work on interlanguage and fossilisation.

### 5.1.3 Interlanguage

The original concept behind what would become interlanguage was discussed in *The Significance of Learners’ Errors* (Corder, 1967). Corder used the term ‘transitional competence’ to describe the differences between the system of the second language learner and that of the native-speaker. This concept was followed by Nemser’s ‘approximate system’ which he defined as:

> [t]he deviant linguistic system actually employed by the learner attempting to utilise the target language (1971, p. 115).

Research in the 70s on the differences in learner language systems showed that not all of the discrepancies between the learner’s system and that of the target language could be explained using contrastive analysis.

Interlanguage, a term first coined by Selinker in 1972 through the adaptation of Weinrich’s ‘interlingual’ (U. Weinreich, 1953), refers to the separate language system that second language learners create based on the input to which they have been exposed (Selinker, 1972). This language system is the best attempt, at any given time, of learners to provide structure and order to the new linguistic information they are taking in. The learners eventually succeed, step-by-step, in approximating towards the system utilised by native-speakers (Song, 2012, p. 778). This process is slow and is done through trial and error by the learners’ application of their own hypotheses. Larsen-Freeman and Long (1991), and Song (2012), suggest that interlanguage would be more easily understood as a continuum. At any given point on a continuum, between the native language and the target language, the learner’s language is systematic. There are
rules and structures within the language system and any variation within this system between learners is in direct response to differences in their input and learning environments (Larsen-Freeman & Long, 1991; Nemser, 1971).

Corder (1967) and Selinker (1972) claimed that the interlanguage system of a second language learner was separate from both their native language and the target language as the learner’s language varies much more than the native-speakers’ does (Major, 1998). Selinker found that second language learners produce different utterances from those that would be produced by native-speakers, arguing on this basis for the existence of a separate linguistic system (Selinker, 1972; Tarone, 1987). This notion of a separate system was supported by Nemser who wrote about ‘the frequent and systematic occurrence in non-native speech of elements not directly attributable to either native language or target language’ (1971, p. 119), such as the intermediate phones which occurred in the language of Hungarian-speaking participants who often realised English [θ] as [fθ] or [sθ] (Selinker, 1992, p. 174).

The next section considers an interesting and confounding element in SLA and that which most affects this study, namely fossilisation.

The cessation of learning is a persistent problem in second language acquisition despite continuous exposure to, motivation to learn, and opportunity to engage in the target language. Since the 1970s this issue, experienced by the vast majority of adult language learners, has seen these learners stop development in their interlanguage in some, if not all, linguistic systems, e.g. phonological and morphological systems. Kellerman (1995, p. 219) wrote:

One of the most enduring and fascinating problems confronting researchers of second language acquisition is whether adults can ever acquire native-like competence in a second language, or whether this is an accomplishment reserved
for children who start learning at an early age. As a secondary issue, there is the question of whether those rare cases of native-like success reported amongst adult learners are indeed what they seem, and if they are, how is it that such people can be successful when the vast majority are palpably not.

In his original article introducing interlanguage, Selinker (1972) argues that adult learners cannot hope to become native-like in their second language as a result of neurological factors. Scovel (1988) agrees with Selinker’s hypothesis on a neurological change causing the cessation of interlanguage development. This neurological change was theorised to be related to the process of cerebral lateralisation, which is completed during puberty (Tarone, 2006). However, some researchers, such as Beebe and Giles (1984), Preston (1989), and Zuengler (1989a, 1989b, 1989c) propose that social identity factors, not neurological changes, are the ‘prime causes of fossilisation’ (Selinker, 1992, p. 251). Towell and Hawkins (1994, p. 2) argue that,

> for most of us, the acquisition of second language is less than spectacular. If we are past the age of around 7-10 years the acquisition of an L2, in marked contrast to the way we acquired our first language, can turn out to be rather slow, laborious and, even in talented L2 learners, tends to stop short of native-like proficiency. This ‘stopping short’ has been referred to as fossilisation (Selinker, 1972) or incompleteness (Schachter, 1990). It is one of the noticeable characteristics of SLA.

Scovel (1988) postulated the eponymous Joseph Conrad Phenomenon, based on the Polish author who wrote in English and who developed native-like grammar yet never lost his Polish accent. This phenomenon sought to bring attention to the common situation in which the phonological system of an adult learner may fossilise, but lexicon, syntax, and morphology are able to maintain development until native-like ability has
been achieved. Individuals who attain high levels of grammatical competence but retain a foreign accent are said to exhibit this “Joseph Conrad Phenomenon” (Scovel, 1981, 1988). This phenomenon was renamed the “Henry Kissinger phenomenon” after the United States politician.

Han discusses the properties which are integral in the process of fossilisation. He considers three features; first, fossilisable structures are persistent; second, they are resistant to explicit instruction and intervention; and third, fossilisation affects second language learners at any age, child and adult alike (Zhaohong Han, 2004, p. 215). Selinker proposes that fossilisation was both a mechanism and a performance-related structural phenomenon (1972, p. 211). As a mechanism, Selinker explains that fossilisation ‘underlies surface linguistic material which speakers will tend to keep in their interlanguage productive performance, no matter what the age of the learner or the amount of instruction he receives in the target language’ (1972, p. 229).

There is some disagreement about the permanency of fossilisation (Tarone, 1994). Those researchers who believe social identity has a role to play in fossilisation also believe that it is not an inevitable process. Such researchers suggest that, if learners can identify strongly enough with the speakers of the target language, or if their need is great enough, their language will continue to develop until their production/perception is indistinguishable from that of native speakers (Tarone, 1994, p. 751).

A model offered by Beebe and Giles (1984), the Speech Accommodation Theory, predicts that learners will ‘adjust their production of L2 forms to the forms that are used by their interlocutors’ (Tarone, 2006, pp. 160–61). This model suggests that second language learners either converge or diverge. Those who converge sound more like the interlocutors with whom they want to identify; and those who diverge from the speech patterns of first language speakers are L2 speakers who do not identify with the first
language speakers. This raises the question whether such non-identification can lead to fossilisation and whether later identification with a new group can reverse the fossilisation.

Two studies have provided empirical data to answer this question. Schumann (1978b) followed the second language acquisition and subsequent fossilisation of Alberto, a participant in his study. The study observed that Alberto failed to fully acquire English even though he was living and working in the United States. Schumann attributed the failure to acculturate to the norms of the American society or with English-speakers (Anglophones) who belong to it. The acculturation model predicts that learners who do not acculturate will fail to acquire the L2 competently, possibly even ceasing development early on and causing the interlanguage to fossilise. In another study, Lybeck (2002) found in her longitudinal study of American women in Norway, that learners’ phonological forms of Norwegian either progress or fossilise in direct response to the ability of the learner to acculturate to Norwegian norms and to form a new social identity. Her learners were found to improve their Norwegian pronunciation if they identified with the Norwegian natives and had strong social connections. The pronunciation of one of the learners deteriorated and Lybeck suggests that it was a lack of connections with Norwegians and bad experiences with in-laws that was detrimental to their L2 pronunciation.

5.1.3 Second Dialect Acquisition

According to Siegel (2010, p. 1) second dialect acquisition (SDA) is “the examination of how people who already speak one dialect (D1) acquire a different dialect (D2) of what they or their community perceive to be the same language.” Another definition is that SDA is the process by which people who are transplanted
from one region to another, acquire a second dialect of the same language (Chambers, 1992, p. 674). Dialects are not often codified when compared with languages and many people think of a language, rather than a dialect as being associated with a country. For example, New Zealanders and Australians are considered to speak English, not their respective dialects. A problem in SDA is that it can be notoriously difficult to distinguish language and dialect. The situation of Scots illustrates this confusion; there are people who consider it a separate language that has diverged from the dialect of Middle English spoken in Northumbria, but others who consider it a historical dialect of English (Government Social Research, 2010).

The concept of second dialect acquisition is relevant in this thesis because the participants who have migrated to New Zealand have already learnt a second language – English. The transfer from their Afrikaans L1 to their English pronunciation provides the basis for their Afrikaans English dialect. As mentioned previously, Afrikaans English is considered by some researchers as a separate dialect in its own right (Branford, 1994; Donaldson, 1993; Watermeyer, 1996) and by others (Bowerman, 2004; Lass, 2002; Lass & Wright, 1986; Trudgill & Hannah, 1985) as having a place on the continuum of South African English. Adapting to New Zealand and incorporating some pronunciations of New Zealand English demonstrates, in some ways, the process of acquiring a second dialect. While all the participants had studied English at school, some had little experience of its use (Sweetnam, personal communication, 2018), and in some ways this could be considered reversing fossilisation.

Social factors are an important consideration in this situation, and relevant to the present study. Assimilation and acculturation (Lybeck, 2002; Noels, Pon, & Clément, 1996) to the local speech community is perhaps one of the most important factors in an individual’s linguistic development (Tagliamonte & Molfenter, 2007, p. 650). These concepts are discussed later in this chapter. The decision to assimilate is important in
the present study as the Afrikaans speakers arriving to New Zealand can be subjected to discrimination or they may develop a feeling of separation from the L2 community. A strategy to avoid these negative ramifications of relocation is to become a member of the new community. This increases motivation to assimilate, and according to Moyer (1999) empirical evidence links motivation and success in acquiring an L2 accent. Acquiring a D2 is different from an L2, as both dialects are normally mutually intelligible, as is the case with Afrikaans English and New Zealand English. Often, this would determine that there is little need to change dialects. However, in order to become members of the New Zealand community or reduce discrimination, some immigrants choose to change their accent to approximate towards that of the speakers around them. The results of a study conducted by Munro, Derwing and Flege (1999) on the dialect acquisition of Canadian English speakers who relocated to Alabama in the United States suggested that there was a detectable change in the dialect of the Canadians. Although, by the authors’ account, there were several factors which would have gone against their change, the speech of the Canadian English speakers had differences detectable by both D1 and D2 speakers. Such factors were: being over 18 years old during relocation; both dialects are mutually intelligible; and the low-prestige rating that Canadians had previously given Alabama English (see Lippi-Green, 1997). Such results are important to the present study because the participants who relocated to New Zealand did so after the age of 18.

One of the limitations with research in SDA is that there are few studies that consider SDA in adult learners (Munro et al., 1999). There are studies which have monitored SDA in children (see Krashen & Seliger, 1975; Payne, 1980; Tagliamonte & Molfenter, 2007; Trudgill, 1986) and links have been observed between accelerated SDA and well-defined sociocultural milestones (e.g. school, workplace), as well as successful SDA and sustained access to and integration with the local speech community.
(Tagliamonte & Molfenter, 2007, p. 649). In their separate studies, Payne (1980) and Trudgill (1986) both found that their participants exhibited variable systems while in transition from one dialect to another, and that while there were successes in the acquisition of the D2, there were limits on the SDA process even amongst younger participants (Trudgill, 1986, p. 32). Another study, undertaken by Starks and Bayard (2002), considered children in New Zealand who had North American English-speaking parents. They identified that earlier entrance into day care and consequent earlier immersion in NZE surrounds may have influenced the acquisition of the non-rhotic /r/ of NZE, while later entry into day care resulted in more early parental contact and a higher use of postvocalic /r/ (Starks & Bayard, 2002, p. 190).

An interesting finding from Starks and Bayard (2002) is that the child, who entered day care the latest, acquired the least NZE realisations of the vowels and consonants examined, even though they encountered the dialect as a child still. Although the present study considers adults who enter a new speech community after critical period, it is interesting to consider that in other studies, the age of a child entering day care could possibly affect the final attainment of D2. This would suggest that, as adults, the participants of the present study would struggle to acquire almost any NZE articulations, but this study has found the opposite to be true.

Age at the onset of learning an L2 has been a much-studied factor in SLA. The accepted view amongst the lay public still seems to be that there is some sort of barrier which prevents native-like levels of L2 acquisition or even the acquisition of high levels of competence in a second language after puberty. This time constraint, by the end of which is it supposedly impossible for learners to attain native-like pronunciation, is called the ‘critical period’, and the belief is based upon Lenneberg’s (1967) original principle for L1 acquisition, namely the Critical Period Hypothesis. The original hypothesis with respect to research into L1 acquisition held that if children had not
been exposed to language by a certain age, it would be impossible for them to acquire language at all.

It used to be generally accepted by the academic community that the earlier children are provided access to input in the L2, the more likely they are to gain native-like fluency and consequent bilingual ability (Leopold, 1939). Development of native-like pronunciation in older children has been shown to be possible, as documented in the research of Wode (1981) who studied his children’s acquisition of English after learning German as their first language. Krashen, Long and Scarella (1982) found that older learners initially progressed faster than their younger counterparts, but early exposure in a natural setting ultimately produced native-like fluency in all areas.

Although there is some belief that, after the critical period, native-like pronunciation is no longer possible (Lenneberg, 1967; Patkowski, 1990; Scovel, 1969, 1988), debate continues about whether or not grammar can be successfully acquired to native-like levels of competence e.g. see Joseph Conrad Phenomenon.

Age as a factor in the present study is relevant because the participants in this study all relocated as adults when they would have had advanced knowledge of English, but they would generally have maintained strong L2 English accents. It has been found in pronunciation research (J. J. Asher & García, 1969; Flege, Yeni-Komshian, & Liu, 1999; Marinova-Todd, Marshall, & Snow, 2000; Moyer, 2007) that the older the L2 learners are when they start learning the language, they less likely they are to achieve high levels of competence, in other words, the more likely their interlanguage is to fossilise (Tarone, 2006) especially in pronunciation.

Gender may be relevant to this study. Females tend to be more concerned about their L2 pronunciation than their male counterparts (Thompson, 1991), and they also tend to focus more on accuracy in pronunciation than their male counterparts (Spezzini,
In previous studies, women have been found to lead the way in language/dialect change in both monolingual (Cameron, 2003; El-dali, 2013) and bilingual settings (Eckert & McConnell-Ginet, 2013; Labov, 2001; Shin & Otheguy, 2013). Gender was found to be a significant variable for Adamson & Regan (1991) who found that females L2 speakers tended to more frequently use [in] more than their male counterparts. Major (2004) also looked at gender and found that L2 speakers of English deciphered and adopted gender differences more than stylistic differences.

5.1.4 Motivation and SLA

Gardner and Lambert (1959) pioneered the study of motivation relating to final success in attainment of the L2, demonstrating a statistically significant relationship between motivation/attitude and SLA. Gardner and Lambert proposed a construct called integrative motivation. To be ‘integratively motivated’, a learner must desire to identify with another ethnolinguistic group. Their definition of identity was borrowed from Mowrer (1950 as cited in Gardner & Lambert, 1959). By way of contrast to integrative motivation, Gardner and Lambert (1972) introduced the concept of instrumental motivation, which is driven by utilitarian aims, such as career development, educational goals, social status, and parental pressure for example.

Gardner and Lambert believe that extrinsically-motivated learners can be as highly motivated as those who are intrinsically motivated, but hypothesise that intrinsic motivation is better for the long-term commitment of learning an L2. Spolsky (1969) found that a student’s desire to communicate with and speak like first language English speakers correlated directly with the proficiency of the student in the L2. Spolsky maintained that, ‘learning a second language is key to possible membership of
a secondary society: the desire to join that group is a major factor in learning’ (1969, p. 14).

Although there have been many attempts to define motivation (see Clément, Dörnyei, & Noels, 1994; Dörnyei, 1994a, 1994b; Gardner, 1985; Gardner & Lambert, 1972) and create frameworks (see Dörnyei, 1994a; Tremblay & Gardner, 1995; Williams & Burden, 1997), there is still disagreement among SLA researchers (Dörnyei, 1998). Williams and Burden (1997, p. 120) provide a useful definition for learners in a second language classroom:

Motivation may be construed as a state of cognitive and emotional arousal, which leads to a conscious decision to act, and which gives rise to a period of sustained intellectual and/or physical effort in order to attain a previously set goal (or goals).

However, such a definition does not cover the needs and motivations of migrants in an L2 setting.

According to Douglas Brown, motivation ‘entails a complex and multifaceted nature’ (2015, p. 93) which has seen researchers move away from the dichotomy of intrinsic vs. instrumental motivation and towards definitions of motivation which consider the larger contexts of learning languages. Taking into consideration the learners’ perspectives of their future is necessary when investigating language change over time in L2 environment. Dörnyei (2005; 2009) drew on the learners’ perspectives on their future selves and proposed the ‘L2 Motivational Self System’. This system introduced the concepts of the ideal self and the ought-to self which are concerned with what the learner hopes to become and what the learner believes is required to achieve this future. Ushioda elucidates Dörnyei’s new concepts by suggesting that second language learners want to “reduce the discrepancy between current- and future-self
states” (2013, p. 3764) under the assumption that fluency in the L2 is necessary to achieve one’s ideal or ought-to self, and thus the learners will be greatly motivated to achieve.

During the formative years of the study into motivation and SLA, the concept of attitude was always incorporated into the definition of motivation. This is illustrated in the early work by Gardner and Lambert (1959) who do not distinguish between motivation and attitude. More than two decades later, Gardner (1985) separated the two and described a linear relationship among attitude, motivation and acquisition, with attitude affecting motivation which in turn affects acquisition of the L2 or TL. Therefore, although not directly affecting acquisition, attitude has an important indirect influence.

As attitude gathered more importance as a factor in the process of acquiring an L2, more studies considered the influence of attitude in the final attainment of L2. The most commonly-researched attitude in the SLA context is that of the learners towards the speakers of the TL (Larsen-Freeman, 2002). Scherer and Wertheimer (1964) show that American college students’ positive attitudes towards Germans, the German language and the perception of themselves speaking German, correlated positively with proficiency in German as an L2. A Canadian study also demonstrated that a positive attitude towards the TL and those who spoke it was related to L2 success in the Canadian bilingual environment (van Els, Bongaerts, Extra, van Os, & Janssen-van
Dieten, 1984, p. 119). Oller and his colleagues debated the claim that a positive attitude towards speakers of the TL correlates with successful SLA. In two separate studies, they found that positive attitudes by Chinese foreign national students towards English speakers in the USA resulted in higher scores in a fluency-based cloze test (Oller, Hudson, & Liu, 1977). This finding supported the prevailing view that a positive attitude towards the TL or its speakers results in better acquisition of the L2.

Attitude has not invariably been found to be a factor in adult second language acquisition. Oller, Baca, & Vigil (1977) found that Mexican-American women living in Albuquerque, New Mexico who were highly positive towards English-speaking Americans but did poorly on an English cloze test. The authors attribute the difference in findings to the background of the participants. In their study with Chinese-speakers (mentioned above) the participants came from a relatively high socio-economic class and were in the country to study English by choice, whereas the Mexican-American women were members of a lower socio-economic stratum and might have harboured feelings of being a ‘colonised minority’ and thus resented the Anglophone majority. These emotions may not inhibit their motivation because they may still be very eager to learn the language as Gardner puts it, ‘to remove themselves from the oppressive conditions brought on by their lack of English’ (1980, p. 266). In such circumstances, negative attitudes apparently do not detract from SLA. In another study, Cooper and Fishman (1974) found positive attitudes towards English speakers were largely irrelevant to Israelis learning and using English.

Some studies dispute the relationship between attitude and SLA in child SLA. MacNamara (1973, p. 37) argues that, ‘a child suddenly transported from Toronto to Berlin will learn German no matter what he thinks of Germans.’ A study on Anglophone Canadians by Genesee and Hamayan (1980) found no relationship between attitudinal factors and the proficiency of L2 French in six-year-old English-
speakers. However, German children who had been learning English for at least five years displayed significantly more positive attitudes towards the target culture than a group who had more recently begun their studies, according to findings by Hermann (1980). The lower-proficiency group showed significantly more prejudice towards the target culture and speakers. Hermann explains this in terms of a resultative hypothesis: ‘The mere satisfaction (a learner) derives from his achievement of the learning task may influence his attitude to the ethnolinguistic group in question and even result in a change of such attitude’ (1980, p. 249).

This explains why Savignon (1972) found no correlation between early attitude and measures of final achievement of American college students in their first semester of French at the University of Illinois. Throughout the students’ time in the course, the correlation between attitude and their achievement in French increased substantially. These findings suggest that achievement in SLA also breeds positive attitudes towards the speakers and culture of the TL. This relationship between attitude and SLA success is also documented by Strong (1984) who found that success contributes to heightened motivation to acquire a second language. Considering these findings, a more complex model could illustrate the connections between all three factors with a possible connection between attitude and acquisition as shown below:

![Figure 3 A Revised Model of Attitude, Motivation and Acquisition](image-url)
In the light of Gardner and Lambert’s (1972) work, many subsequent studies into pronunciation considered how these two types of motivation affected second language learners’ achievement in acquiring pronunciation. Moyer (1999) suggests that instrumental motivation more significantly predicts foreign accent than other variables do. In an earlier study by Bongaerts et al. (1997), instrumental motivation was found to be correlated negatively with an L2 foreign accent. Another variable to consider is the second language learner’s concern for accurate L2 pronunciation.

Studies have suggested that such concern is a factor in overall pronunciation success. Purcell and Suter (1980) found that concern for pronunciation was the fourth most important factor in determining the lack of a foreign accent, and another study by Elliot (1995) found that this concern was the most significant factor in predicting pronunciation accuracy. A study conducted by Thompson (1991) into the difference in pronunciation accuracy between male and female L2 learners of English found that female learners tend to be more concerned with pronunciation accuracy and thus achieve higher rates of accurate production in the L2. However, even though Thompson’s findings suggest that there is a relationship, they do not show a significant relationship between motivation and final attainment in L2 pronunciation. This result matches the earlier findings of Oyama (1976), who did not find a significant link between motivation and foreign accent. Piske et al. (2001) found that even though motivation alone does not predict native-like L2 pronunciation, it has some influence on pronunciation (Pullen, 2011).

Another concept which together links motivation, identity and SLA is that of investment. This is discussed after the introduction to identity in §5.2.2.
5.1.5 Exposure to L2 and Continuing Use of L1

When individuals migrate to another country, or even begin learning another language in their home country, two factors come into consideration: exposure to the L2 and continuing use of the L1. Each of these factors affects the capacity of the second language learner to develop a native-like accent. Continuing use of the L1 has an effect on the pronunciation of the L2. In other words, ‘the less L1 there is, the smaller will be its influence on the L2’ (Flege et al., 1997, p. 172). This factor is relevant for migrant families who have relocated to countries in which another language is spoken. Flege et al. investigated the effect that continuing use of the L1 had on the English accent of native Italian speakers who have moved to Canada at the age of five. Two groups of Italians were used: those who spoke Italian more than 30% of the time and those who spoke it less than 5% of the time. The researchers found that, while both groups of Italians were identified as having foreign accents, the group who spoke the least amount of Italian had significantly weaker foreign accents than their counterparts. Thompson (1991) found that L1 use had a significant direct correlation with the strength of foreign accent in their Russian participants. In another study Flege et al. (1999) found that learners who used more English (their L2) and less Korean (their L1) had significantly lower degrees of foreign accent in their production of English sentences.

This use of L1 is relevant to the present study because the Afrikaans-speaking participants would have been required to change the language in which they communicated in post-relocation. In South Africa, the Afrikaans participants would have spoken Afrikaans each day with family, friends, and colleagues, used it at the shop or on the street, and read it in books and newspapers, and watched Afrikaans speakers on television and heard the language on the radio. However, after arriving in New Zealand, this would have changed. While they may still speak some Afrikaans at
home (if they have an Afrikaans-speaking partner), the language in the street and work would have been English, effectively reducing the amount of L1 that they are exposed to and use on a daily basis. Although there are some South African associations in cities such as Auckland and Christchurch, many migrants from South Africa deliberately avoid contact with other South Africans on relocating, in an effort to acclimatise more quickly in their new country\textsuperscript{12}.

The other factor at play here is exposure to the L2. As Derwing et al. (2006, p. 184) point out, exposure is significant in SLA and ‘many individuals’ productions are … shaped by what they perceive in the environment around them.’ Derwing et al. (2006) caution that if learners are residing in an English-speaking country, it does not necessarily mean that each learner receives equal opportunities to engage in the L2. Their exposure to the L2 is influenced by their social networks in the new country, the size of pre-existing compatriot communities, and of course by the individual’s own motivation, personality and educational history (2006, p. 185). Derwing et al.’s study found that Slavic speakers, who reported more interaction with L1 English speakers in the United States, showed a significant improvement in their English competence over the Chinese learners who did not interact with L1 English speakers.

In the present study, the Afrikaans participants who were raised in South Africa would have been exposed almost daily to some form of English (the dominant language) growing up in South Africa. However, relocating to New Zealand would see the participants’ exposure to English increase as most forms of media, communication at work or on the street would be in NZE.

\textsuperscript{12} Personal communication Moyra Sweetnam Evans and others.
5.1.6 Sociolinguistics and the Development of the L2 in Migrant Communities

Introduced to the thesis in section 2.5.4 were the Afrikaans-speaking migrants who have relocated to New Zealand and some background to their environment. This section offers information on the sociolinguistic factors behind the L2 development and possible dialect change in migrant communities to better understand the context in which the Afrikaans speakers now find themselves. Work on language change in migrant communities has been done on Polish adolescents in London and Edinburgh looking at variation in the production of specific variables, namely, -ing and t-glottalisation (Meyerhoff & Schleef, 2012; see Meyerhoff, Schleef, & Clark, 2009; Schleef, 2013), the STRUT vowel in Polish migrants in Manchester, United Kingdom, and the social factors which influence the variable acquisition of the local variant (Drummond, 2012), glottalisation of /t/ in a similar Polish migrant group in Manchester (Drummond, 2011), and sociolinguistic factors in passing for a native speaker in New Zealand English (Gnevsheva, 2015).

Research into L2 sociolinguistic competence has found that non-native speakers often adopt variable linguistic patterns used by the L1 speech community around them (Adamson & Regan, 1991; Gnevsheva, 2015; Li, 2010; Major, 2004; Schleef, Meyerhoff, & Clark, 2011). Schleef et al. (2011) identified, in a comparative study between Polish adolescents and locally-born teenagers, an interesting tendency amongst Polish L2 speakers to adopt both target-like linguistic and social variables and novel ones. The possible lack of adherence to present sociolinguistic variation already present in the L2 speech community found by Schleef et al. might reflect in the results of LOT in this thesis (discussed below).
Sociolinguistic phenomena in SLA are important factors in the acquisition of an L2 by a learner. As Firth and Wagner point out (2007, p. 801),

... language is not only a cognitive phenomenon, the product of the individual’s brain; it is also fundamentally a social phenomenon, acquired and used interactively, in a variety of contexts for myriad practical purposes.

In a similar vein, Larsen-Freeman (2007) concluded her commentary on the controversy between the cognitive and social camps by arguing that a dynamic coupling of each pair would possibly yield a complementary view of the complex processes in SLA (2007, p. 784). In the last few decades, research has been increasingly conducted into factors other than age of learning (henceforth AOL) in relation to the acquisition of an L2 (Aslan, 2014). Researchers have started investigating other non-biological, social and contextual factors (e.g. DeKeyser, 2000; Moyer, 2007; Ortega, 2009). The concept of an individual’s identity is one of the focal points in this thesis and is discussed in more depth later.

According to Gonzalez (1999), the development of an L2 occurs at multiple levels and requires two forms of mechanism, linguistic (structural, semantic) and non-linguistic (discursive and cultural), in order to produce L2 competence. The development of L2 competence and the observed performance of a learner can be influenced by individual aptitudes, linguistic transfer and positive and negative transfer of cultural knowledge (Aslan, 2014). These influences have the potential to cause difficulties and hamper the learner’s L2 development and, in doing so, facilitate the development of negative attitudes towards the TL community and learner bias against the L2 culture. The need to become a member of a community is a strong influence in the acquisition of an L2. Murphy (2014) found that participants of second language studies often commented on the target language groups and communities that
they engaged with and indicated that they wished to become full members of such communities:

I spend a lot of time in France and I want to be able to communicate effectively with people.

I want to have proper conversations with my French friends.

I intend on retiring to France so I need to speak the language.

I wish to speak fluent German as my mother is German and I still have a lot of family in Germany.

My sister-in-law lives in France and I’m determined to be able to follow at least some of the conversations with neighbours when I stay with them. (2014, pp. 258-9)

Murphy illustrated that the learners identified themselves in their novice roles and actively sought out interaction (online, through books, etc.) with the target culture and shared personal information with target language speakers. In return these language learners received various forms of feedback which resulted in their own positive self-evaluation and enabled them to experience a sense of rapport and affiliation with the TL community as they made efforts to improve their language. Murphy also mentions, however, that this was a distinctly one-sided relationship and did not reflect true engagement within a community of practice where all members work towards a common goal.

In another study that considered identity and migrant L2 communities, Gnevsheva (2015 found that migrant L2 speakers varied in their production of NZE depending on their audience and the construction of their identity. The results of her study were similar to those of Piller (2002), who suggested that short encounters in with service people (such as cashiers) and conversations with friends can be more conducive to ‘passing’ (being perceived as a native L1 English speaker). It was suggested that, in
these brief interactions, the L2 speaker’s identity was not required to be negotiated or displayed. Such negotiations of identity can trigger a less native-like pronunciation, as argued by Marx (2002), who suggested that some L2 speakers may consciously choose to preserve their accented English. A change in accent in these speakers may indicate a change in self-identity over time. In his study on Polish adolescents in the UK, Schleef (2013) found that, after two years in English, the ability to produce variation in /t/ articulation allowed the L2 speakers to display their chosen identity post-relocation to England. It was found that those teenagers who enjoyed England and identified more with their locally-born peers often exhibited a higher rate of t-glottalisation; whereas, those Polish adolescents who had not integrated and desire to return to Poland displayed less t-glottalisation. Furthermore, Schleef (2013) suggests that the variation seen within the t-glottalisation in his study indicates that the teenagers are in the process of negotiating their identities.

Taking a native L1-speaking partner can be a consequence of migration to another country. An L1-speaking partner provides more opportunity to interact in the L2, be exposed to more L2/D2 input, as well as possibly provide more opportunities to engage with other L1 speakers due to an accessible L1 network. In his study on the convergence of STRUT and FOOT in Polish speakers in Northern England, Drummond (2012) found that simply having an English-speaking partner was enough for the L2 speaker to exhibit a higher frequency of the local STRUT-FOOT merger. However, Drummond advises caution with his results as no information about the partners was ascertained prior to the study, except those details provided by the Polish-speaking partner. De Klerk (2001) found that in ten marriages between L1 Afrikaans speakers and L1 English speakers in South Africa, the majority of (but not all) Afrikaans speakers shifted to English over a period of time. After several years, these speakers felt that they had become more English.
An individual wanting to become a member of the TL community and in doing so become a part of the culture and identity of the community, or an individual taking a native L1-speaking partner are important factors in the present study as it is relevant to the Afrikaans-speaking population who have chosen to immigrate to NZ, leaving behind their roots and moving to a country where Afrikaans is seldom used in public discourse, thus resulting in huge changes in their daily lives (Barkhuizen, 2006).

5.2 Identity

Identity is difficult to define and the mechanisms through which identity is constructed are complex (Joseph, 2004). The difficulty that lies with both defining and understanding identity is that it works in two ways. When people identify with a certain group through common characteristics, they also distinguish themselves against other groups who are not perceived to have the similarities required to be of the chosen group (Djité, 2006).

Three definitions of identity are considered below. The first is offered by West (1992), who maintains identity is fundamentally about desire. The desire of recognition, visibility, acknowledgement, a desire of association and affiliation with(in) a group. It is the ‘longing to belong’ and the profound need for protection, security, safety and surety. West also suggests the concept of identity involves ‘binding’ which is a double-edged sword in that, on the one hand, it creates the tendency to be parochial, narrow or xenophobic. On the other hand, however, it allows an individual to be held together in the face of adversity and fate, or in the wake of unjustified suffering (West, 1992). Secondly, Djité defines identity as ‘the everyday word for people’s sense of who they are’ (2006, p. 6).
The third is a definition provided by Norton in her work on identity:

Identity … to refer to how people understand their relationship to the world, how that relationship is constructed across time and space, and how people understand their possibilities for the future. (Norton, 1997, p. 410)

Norton takes the position that an individual’s identity is inseparable from their desire for recognition, affiliation and for security and safety (Norton, 1997; West, 1992). These desires are linked to an individual’s access to material resources as the wider range of resources and materials an individual has access to, the greater power and privilege within their society the individual will attain. Likewise, the less material resources an individual can access, the less power and privilege he will be able to attain in society. According to West, it is this access to privilege that will direct a person’s identity; that identity can shift in accordance with changing social and economic relations. Such relations can affect migrants like the Afrikaans speakers in New Zealand, because they have left their networks and reliable material resources in South Africa. They must grow their access to resources and privilege once more in a different context, which will ultimately and necessarily always be different from what they once had in South Africa. Thus, Norton (1997, p. 411) suggests that the question ‘who am I?’ cannot be understood apart from the question ‘what can I do?’, and this is pertinent in the Afrikaans in New Zealand context because it begs the question ‘can one remain an Afrikaner/Afrikaans when it is not possible to continuing doing what they did in South Africa?’

Several studies have endeavoured to define the constituent features of identity. Joseph (2006) posits three categories of identity.

1. Real people vs. fictional characters
2. Oneself vs. others
3. Individuals vs. groups

Although Joseph provides these as mechanisms to understand the complex relationships of identity, Bucholtz and Hall (2004) and Joseph himself note that the subtypes are very simplistic in their definition and scope. He points out that this is shown by how real people can assume false identities or aliases and how fictional characters can appear more “real” than real people. Tajfel and Turner (1985) describe identity as relational and comparative, pointing out that individuals define themselves relative to other individuals in other categories in their social setting. For example, ‘young’ is only meaningful in relation to ‘old’ in the same way that ‘woman’ is only meaningful as opposed to ‘man’. In the case of this study, Afrikaans is meaningful when compared to South African, New Zealander or Kiwi. Considering Joseph’s categories of identity and how they relate to the participants of the study, often a migrant might be the single different identity against the majority, especially in rural New Zealand. Such a difference might be difficult to maintain in the long term, as simply by accommodation or an acknowledgement of the access to different networks, the migrant might begin to become a New Zealander/Kiwi.

This study uses Norton’s definition of identity as mentioned above because its temporal aspects concerning past, current and future possibilities for an individual’s identity are pertinent to the present study and these are relevant to the Afrikaans-speaking migrants’ past lives in South Africa, their current situation in New Zealand and their future possibilities in New Zealand.
5.2.1 Social Identity

The following sections on identity construction, its link to motivation and to language learning continue to lay the foundations for considering research question three on how identity might influence L2 pronunciation. Social interaction is the backbone which solidifies identity construction by individuals. Social identification is the perception of belonging to a human aggregate. Even personal identities only exist in response to a referent to which an individual can compare characteristics. A former Prime Minister of South Africa, Jan Christian Smuts once commented, “[my] very self, so uniquely individual in appearance, is [...] largely a social construct” (Smuts, 1927, p. 254). This quotation nicely illustrates the concept of identity as a social construct. Hogg and Abrams (2002) suggest that a social identity is a person’s knowledge that he or she belongs to a social category or group, as for example someone who defines herself as a woman, a New Zealander and a mother.

When individuals choose to identify with a group, through actual or tacit membership, they are acknowledging their acceptance of the group’s fate(s) as a part of their own. Individuals will classify themselves and others into various social categories (Ashforth & Mael, 1989) depending on the salient attributes which they believe they exhibit; such as religious affiliation, gender, age, organisational membership (Ashforth & Mael, 1989; Tajfel & Turner, 2004), L1, ethnicity, political affiliation, occupation, and nationality. Individuals use different categorising schemata, defined by their own experiences and perceptions, as frameworks upon which to base their judgements of the identities of others.

The most obvious place to start the discussion of social identity is with social identity theory (SIT). Following the demise of the concept of collectivism in mainstream
academia through the 1920s, Tajfel reintroduced the concept of identity as a social mechanism to help provide an answer to why large masses of people engaged in war:

... social categorization is still conceived as a haphazardly floating ‘independent variable’ which strikes at random as the spirit moves it. No links are made or attempted, between the conditions determining its presence and mode of operation, and its outcomes in widely diffused commonalities of social behaviour. Why, when and how is social categorisation salient or not salient? What kind of shared constructions of social reality, mediated through social categorization, lead to a social climate in which large masses of people feel they are in long-term conflict with other masses? What, for example, are the psychological transitions from a stable to an unstable social system? (Tajfel, 1979, p. 188)

Central to social identity theory is the concept of a ‘social group’. A social group is constituted of individuals who consider themselves members of the same social category or individuals who, in some way, have a common attribute that connects them socially. Social groups exist relative to and in comparison with other groups (Tajfel & Turner, 2004). Social groups/categories make up all parts of society, each has more or less power, more or less prestige, and they cannot exist self-sufficiently. A social group retains its characteristics only in as much as it differs from another group. In other words, a group can only exist in relation to another contrasting group. For example, the group ‘young’ only holds meaning when compared to the group ‘old’ — one cannot exist without the other. Social categories, as described below, also require differences between categories in order to be understood.
5.2.2 Investment

In an attempt to wed the concepts of motivation, identity, desires and SLA, Norton developed the construction of ‘investment’ (Norton, 1995b, 1997; Norton & Toohey, 2011). This construct was developed in response to Norton’s earlier work on motivation and SLA which found that high levels of motivation did not necessarily result in accomplished language learning. Through interviews and observations, Norton (1995) saw that unequal power relations were salient in most interactions between language learners and target language speakers.

Norton drew upon the work of Bourdieu (1977) and his concept of ‘cultural capital’. Cultural capital refers to the knowledge, credentials, and modes of thought that characterise different social classes or groups (Bourdieu, 1977, 1991). Norton found that learners invest in the target language in particular settings and at particular times, in the belief that specific knowledge of the target language will increase their available cultural capital. As the learner’s cultural capital increases, so does the learner’s ability to answer the question “what can I do?” and consequently, the learner can reassess his sense of self and their desires for the future, once again linking back to Norton’s concept of identity. Combining these terms and concepts, Norton argues that the combination of identity and investment signal the “socially and historically constructed relationship” that learners have towards the target language and their range of attitudes toward learning and practising it (Norton & Toohey, 2011, p. 420).

The ‘historically constructed relationship’ is an important consideration for the Afrikaans migrants in New Zealand because of the struggle between the Afrikaans language and the English language which has been ongoing for generations (V de Klerk & Bosch, 1998; Louw, 2004b; Rademeyer, 2005). This struggle not only encompasses the formation and maintenance of the Afrikaans language, but also the formation of the
Afrikaans identity itself (as described in §2.5). It is unsurprising, given their history, that some Afrikaans speakers harbour an inherent dislike of English and the culture, some in South Africa going so far as to solely speak Afrikaans in shops regardless of whether their interlocutor is Afrikaans-speaking or not (Sweetnam Evans, 2015). It was the intention of Norton to capture the complex nature of the desires of the learner to engage in social interactions and community practices in the target language speech community. This includes an understanding of the complex and fluid identities of the learner, which change over space and time, and that these identities are constructed on the basis of the socially given (as described above), and individually struggled-for (Norton, 2010).

Two case studies given by Norton illustrate the concept of investment. Both case studies concern women who relocated to Canada for a better life for either themselves or for their families. The first is about Martina (Norton, 1995a), a Czech migrant who struggled with English upon arrival from Austria. She was a qualified surveyor; however, her low proficiency of English at the time meant she struggled to find a job and ended up working in the fast food industry. Her family struggled as they attempted to settle in Canada and Norton suggests that it was Martina’s identity as the primary caregiver in the home that increased her investment in English. This investment allowed Martina to improve in English through discrimination at work - a factor which could have raised her affective filter, resulting in silence. Her responsibility as a mother and primary caregiver overrode her filter and she refused to give up.

The second case study concerns Eva (Norton, 1995b), a Polish refugee, who had relocated to Canada for a better future. Her investment in English developed from her experiences in the workplace and the resulting changes in her identity over time. As her competency in English increased, her language ego (Galetcaia, 2014) began to change and her confidence grew in her ability to challenge her position as a foreign speaker of
English in the workplace. As her identity continued to develop into that of a multicultural citizen, she developed alongside it an awareness of her right to speak.

The above case studies illustrate how identity, motivation and desire all combine to form the concept of investment. Cultural capital, identity and desire are all important factors in the development investment to learn a language, or in this case, a new dialect of a second language. For migrants to a new country, the cultural capital of their new home is different from that of their origin, and this new cultural capital has different values for the different social groups or categories which exist in the new speech community. The following section considers the concept of social categories and ethnic identity.

5.2.3 Social Categories and Ethnic identity

Social categories are formed through the identification and classification of specific attributes. An opposing attribute is used to classify those who lack a preferred characteristic, thus forming an out-group vs. in-group environment. Bucholtz and Hall (2004) explain that social grouping involves a process which not only establishes similarity by discovering existing common characteristics, but more importantly, by creating similarity and vigorously downplaying differences. Bucholtz and Hall (2004) report on studies which show that the formation of socially significant identities occurs more often in environments of heterogeneity rather than in ones of homogeneity. Individuals in these heterogeneous environments either have to downplay their differences in order to find similarity and thus a common social identity or their differences enforce a boundary which pushes them towards different social groups.
According to Stets and Burke (2000), social classification has two functions. The first is that it facilitates an individual’s understanding of the social environment by cognitively segmenting and arranging the variables within the environment by providing a systematic means of organising other individuals or groups. Once classified, these individuals or groups are then assumed to exhibit the prototypical attributes of the chosen category. The second function allows the individuals to assign themselves a place in their social environment, creating their own personal identity in contrast to others. Turner (1985) points out that categories are defined by prototypical characteristics abstracted from the members. For example, if a large category such as Kiwi/New Zealander is considered, other features that come from those who are within the group such as ‘born in NZ’ or ‘consider NZ home’ would also be considered. Kiwi/New Zealander is relational and comparative because it opposes all other national categories, although it is possible for individuals to consider themselves part of several categories based on their national background, such as Kiwi and South African.

Individuals form social groups for security at the most basic level. It has been proposed that humans have a tendency to categorise themselves in order to maximise positive distinctiveness (Tajfel & Turner, 2004). Groups provide individuals with a base from which to create their self-identity, help set boundaries between different groups and increase their individual self-esteem, providing them with a safe place where they can feel good about themselves.

Building up from social categories, ethnic identity can be considered a subjective feeling of belonging to a specific ethnic group (Barth, 1969; Leets, Giles, & Clément, 1996; Phinney, 1990). Barth (1998) proposes the emergence of ethnic identity as a natural reaction under conditions of contact between people of different cultures. Ethnic identity is firstly used by individuals to create boundaries, or reify distinctions between people. Secondly, it is used by individuals who belong to a group separate from the
nation state as a means to resist the de-ethnicising processes. Minority peoples in many countries cling to their ethnic heritage as a way of remaining apart from the majority culture of the nation. By maintaining their own identity they resist the oppression, overt or not, of the majority culture.

The construction of ethnic identity involves a multidimensional, dynamic process which manifests through intergroup relations and the interaction of racial characteristics, country of origin and political orientation. Studies conducted in Canada (Taylor, Bassili, & Aboud, 1973; Taylor, Simard, & Aboud, 1972), the USA (Giles, Taylor, Lambert, & Albert, 1976), Wales (Giles, Taylor, & Bourhis, 1977) and South Africa (Leclezio, Louw-Potgieter, & Souchon, 1986) have determined that language (which includes language attitudes and attitudes towards multilingualism) is an important factor in the creation of ethnic identity (Louw-Potgieter & Giles, 1987, p. 283).

Ethnic identity develops over time. Breakwell (1986) discusses factors involved in the development of ethnic identity (see also Korf & Malan, 2002). Distinctiveness is an important factor in the development of identity. The identity of an individual or group needs to separate them from others both individually and, as members of a group, distinguish them from other such groups (Brewer, 1991; Lau, 1989; Robins, 1996; Rodriguez & Gurin, 1990). Continuity, another factor central to the concept of identity, is included in many definitions of identity (Erikson, 1968; Lian, 1982; P. Weinreich, 1983). This continuity over time is essential for an individual to be comfortable enough to choose, and during this time, develop this identity. The third factor is self-worth. Individuals are more likely to choose an identity which contributes positively to their sense of self-worth. This aligns with SIT views that individuals will lean more towards positive self-esteem with regard to group memberships (Tajfel, 1979). Part of an individual’s self-identity concerns how he or she relates to native and other relevant ethnic groups (Noels et al., 1996).
This study concerns itself solely with the identity construction of Afrikaans speakers. Although participants in the English-speaking groups have different ethnic backgrounds, for example, South African Indian\(^\text{13}\), this is not relevant to this particular study.

### 5.2.4 Ethnolinguistic Vitality and Language Egos: Identity in Second Language Acquisition

How a group behaves as a distinctive and active collective entity in intergroup relations is what defines its ethnolinguistic vitality (EV) (Giles et al., 1977, p. 308; Gogonas & Michail, 2015, p. 198). Ethnolinguistic vitality is based on social identity theory (Jaspal & Sitaridou, 2013, p. 96; Tajfel & Turner, 1985). This section ties in identity and language acquisition for the purposes of answering research question three.

Giles et al. (1977) argued that the vitality of ethnolinguistic groups could be assessed by monitoring three categories of structural variables: namely status, demographic and institutional support. These variables concern several factors about the ethnolinguistic group under observation. Status recognises a speech community’s social status, its economic wealth, and the status of the language used by its speakers in the region where they live. Demographic primarily refers to the number and density of members of a specific speech community over a specific area. It considers if the group still occupies its “traditional” or “national” territory. Institutional support refers to the support that a speech community receives from formal and informal institutions within a region (Husband & Khan, 1982). In one of their original articles on EV, Bourhis, Giles

\(^\text{13}\) The accents of these participants are discussed later in the section on participants (section 6.7).
and Rosenthal suggested that the amount of L1 that speakers could use was related to the vitality of their speech community (1981, p. 146). These institutions include schools, church, business, and the home. In essence, the higher the vitality of a speech community, the more likely is it that the group will continue to exist as a separate and fully functioning community within the sociolinguistic landscape of the region. Conversely, a speech community that lacks in vitality will most likely decline and eventually cease to exist as a distinctive group and become assimilated into the dominant language group (Jaspal & Sitaridou, 2013).

Identity and ethnolinguistic vitality have been shown to be linked. In a study looking at the relationship between ethnolinguistic vitality and identity threat in speakers of Andalusian Spanish, Jaspal and Sitaridou (2013) found that a perceived lack of status and weak representation in formal institutions was prevalent among their participants. However, they also found that their participants accepted that their demographic vitality was high and that this appeared to provide the base for a coping mechanism arising from the lack of vitality in other domains. This mimics the situation of Afrikaans speakers in New Zealand, except that these Afrikaans speakers do not have the majority anywhere in the country. This provides different difficulties that they must face in relation to their ethnolinguistic vitality and possible threats to identity. In terms of ethnolinguistic vitality, it can be said that the status of the Afrikaans speakers in New Zealand is relatively high, with Afrikaans speakers often in well-paying, respected positions (Barkhuizen & Knoch, 2005), while the status of Afrikaans in New Zealand is neither high nor low but is tarnished by its association with apartheid which flows on to possibly cause discrimination against the speakers by some New Zealanders. The demographic and institutional factors are both low in the linguistic landscape of New Zealand with Afrikaans speakers a minority in their regions as well as there being no formal recognition of Afrikaans by national or local governments. This
in turn can affect how the Afrikaans speakers feel about the value of their language and identity. However, an important distinction between the work of Jaspal and Sitaridou and the present research is that the Andalusian Spanish speakers still reside in their home country, whereas the Afrikaans speakers in New Zealand have left their home and roots behind.

While formal institutions such as government agencies and schools are conspicuous in their place among the linguistic landscape, the language in signage throughout a region can have an effect on the ethnolinguistic vitality of a speech community and represents a more subtle indication of language power. Often, the high status language of a region is used for formal functions of local government, schooling, etc. (Bourhis, 1979), while a lower-status language is relegated to notes at home and community fliers. This may even be the case in situations where the high-status language is spoken by the minority of a population in a region (Landry & Bourhis, 1997). Thus, visitors to an area can use the linguistic landscape as an indication of the language of power. An example of this situation was that of Afrikaans in South African during the apartheid government. Although in most provinces, there were more speakers of the regional Bantu language than Afrikaans speakers, Afrikaans was the dominant language of government and the linguistic landscape. While anecdotal evidence would suggest that this is changing, there are still many posters, advertisements and signs throughout South Africa which indicate the legacy of Afrikaans before 1994.

Prior to relocating to NZ, the Afrikaans speakers had come from areas where both English and Afrikaans had been evident in the linguistic landscape (although some believe that Afrikaans is losing power in the new South Africa). Now, English is the dominant language in the linguistic landscape, occasionally complemented by Maori in formal functions through government institutions. The effects of this change in
linguistic landscape can be felt by the Afrikaans speakers as seeing their L1 in use on signs and within government, instilling a feeling that the speech community has value and status relative to other languages in the social linguistic setting (Landry & Bourhis, 1997; Quebec, 1996). Thus, the lack of Afrikaans in the sociolinguistic landscape of New Zealand could result in feelings of displacement, isolation and/or linguistic longing among the Afrikaans speakers.

Another study (Gogonas & Michail, 2015) focussed on Albanian-speaking immigrants in Greece. The vitality of the Albanian language and the language maintenance strategies of the migrants employed were considered alongside their sense of belonging and possible language shift. In terms of ethnolinguistic vitality, Albanian has a very low status within the Greek linguistic landscape and its speakers are subjected to discrimination and negative perceptions from native Greeks (Maroukis, 2009). Such is the strength of the negative perceptions that some researchers have described it as ‘Albanophobia’ (Karydis, 1996; Lazaridis & Koumandraki, 2001). The vitality of the demographic is stronger as there are between 400,000 and half a million Albanian immigrants in Greece. Support from institutions is lacking in Greece, and although it once had laws protecting foreign residents, these were overturned in 2012. Lastly, the crash of the Greece’s economy in recent years has seen many Albanian stay permits rejected and an increase in numbers of illegal immigrants, which in turn has caused effects in their social and demographic factors (Michail, 2013). The results of this study showed that there was a very low vitality among first and second generation Albanians in Greece and a consequential language shift which saw Albanian being used solely in the domain of the home amongst most participants, with Greek being used elsewhere. There was also a significant shift in the attitudes of the later generations towards becoming Greek and wishing to obtain Greek citizenship.
In an attempt to link identity and SLA, Guiora (1972) introduced the construct of language egos. Basing his construct on the Freudian concept of body ego, Guiora argues that “language and speech achieve … an advanced level of integration between internal and external components of self-representation” (1972, p. 144). When language learners develop an L2 (or an additional language), conflict in their identity can emerge as they underestimate the influence the strength of the second language context can have on their identity (Galetcaia, 2014). Specifically, the development of the feeling of home and belonging can be attributed to the learner’s language ego (Stout, 2006; Tavakkoli, Rakhshandehroo, Izadpanah, & Moradi-Shad, 2014). Previous studies have considered the effect of language ego on the effectiveness of SLA by looking into tolerance of ambiguity, adaptability, and openness towards the target speakers and cultures (Ellis, 1991; Erhman, 1993; Guiora, Beit-Hallahmi, Brannon, Dull, & Scovel, 1972). Galetcaia (2014) found that language egos differed drastically between participants with some becoming more sociable and tolerant, while others became shy and anxious and felt a loss of self when they were unable adequately to explain their thoughts in the L2.

Language ego permeability (Guiora and Acton, (Guiora & Acton, 1979), refers to the movement of language learners between one identity and the next, depending on the language they are using, and involving how they react to these changes (Huang, 2014). A change of identity can cause language learners to act differently, or even change their personality (Cervatiuc, 2009). Cervatuic (2009) found that some language learners admitted to trying consciously to become more extroverted in order to provide themselves with the most opportunities to learn language. These findings were considered to illustrate how learners change their identities during L2 development.

This concept of changing identities in the L2/D2 learning environment could explain how the identity of the ANZ participants influences a difference in their L2
pronunciation post-relocation in New Zealand. In other words, as Douglas Brown and Heekyeong (2015, p. 376) suggest, “you are what you speak”.

5.3 Conclusion of literature review

The intention of this literature review was to provide foundations for the research questions to be answered later in this thesis. Details pertaining to research question one included the chapters on describing the consonant and vowels and the reasons behind their choices (more on their selection in the following chapter), namely chapters three and four. Research question two was attended to in chapter five in the literature on processes in language change and second dialect acquisition and research question three was considered through the section on the construction of Afrikaans identity in chapter two as well as sections on identity construction and its influence on language acquisition in chapter five.
Chapter 6

Methodology

6.0 Overview

This chapter comprises three sections. The first section outlines a paradigm of constructivism and its application in qualitative design. The second section introduces the concept of mixed methods research (MMR), its advantages and disadvantages in research and explains how it fits the present study. Briefly, this study looks for (quantitative) differences in pronunciation of English between cohorts of Afrikaans-speaking and English-speaking participants and seeks to qualify the quantitative results by seeking possible (qualitative) reasons behind the participants’ own perspectives and experiences. An outline of the conceptual framework of the research then follows. The research questions of this study are then discussed in the following section encompassing a brief reiteration of the research contribution and how it fills the relevant gap in the literature.

The next section provides information on the participants in the study. There are five cohorts of participants in the study and the thesis focuses on the ANZ (Afrikaans speakers in New Zealand), NZE (New Zealand English speakers) and ASA (Afrikaans speakers in South Africa) cohorts while the SAE-speaking cohorts are included to provide more detail, especially with vowel analysis. The factors under investigation are mentioned again, along with the conditions under which they will be analysed. This is followed by the third section on vowel normalisation and the procedure used in this
study. This chapter closes with details about the data collection, what equipment was used in the data analysis and how the analysis was completed.

6.1 Paradigm: Constructivism

This section focuses on the explanation of the research paradigm of constructivism and its relevance to this study. It will consider which design of MMR was considered most appropriate for the purpose of this investigation and which paradigm, such as constructivism, was applied.

A paradigm is a system of belief or a worldview that guides researchers (Guba & Lincoln, 1994) through their studies. In behavioural and social science, the importance of the use of paradigms stems from Kuhn’s (1970) book, *The Structure of Scientific Revolutions*, which explains that paradigms are models that are imitated in any given field. While Kuhn himself did not believe that paradigms can be applied to broad categories of social sciences (e.g. sociology, psychology), it is now believed possible that paradigms do underpin disciplines within these divisions. The use of this study of the perceptions and observations from the participants and the nature of the inquiry by the researcher necessitates the utilisation of a constructivist paradigm.

6.1.1 Constructivism and Qualitative Design

Constructivism is one of the research paradigms underlying qualitative methods, investigations and analyses (Howe, 1988; Lincoln & Guba, 1985). Constructivism was developed in the latter half of the twentieth century as a reaction to the then popular Positivist paradigm which was strongly based on quantitative methods. Originally, the constructivist paradigm developed from the philosophies of Edmund Husserl’s
phenomenology and from other researchers’ studies of interpretive understanding, such as hermeneutics (Eichelberger, 1989). While researchers using a positivist paradigm attempt to investigate an experience and analyse it ‘through observation and measurement in order to predict and control forces that surround [them]’ (O’Leary, 2004, p. 5), those working within a constructivist paradigm rely upon the ‘participants’ views of the situation being studied’ (Creswell, 2003, p. 8), as they understand that ‘reality is socially constructed’ (Mertens, 2005, p. 12) and that their present situation is a ‘world of human experience’ (Cohen & Manion, 1994, p. 36), suggesting that an unbiased, completely objective, realist perspective is not an appropriate ideal for the collection of (especially qualitative) data (Phakiti, 2014). During the period of 1970–1985, qualitatively-orientated researchers, (such as Eisner, Geertz, Lincoln and Guba, Stake, Wolcott), criticised the prevailing Positivist paradigm, arguing that it failed to meet the standards of data they required. They subsequently proposed a wide variety of qualitative methods, coming under the umbrella term of constructivism. This movement quickly garnered support among the academic community, as Denzin and Lincoln report:

Over the past two decades, a quiet methodological revolution has been taking place in the social sciences ... to the extent to which the “qualitative revolution” has overtaken the social sciences and related professional fields continues to be nothing short of amazing (Denzin & Lincoln, 1994, p. ix).

It can be difficult for researchers to maintain objectivity when working with participants using a positivist paradigm. This is often because of the close contact with the participants that is required in constructivist methods. According to Creswell (2003, p. 9), constructivists do not start out their investigations with a theory but ‘generate or inductively develop a theory or pattern of meanings’. Constructivism takes a relativist stance, which according to Guba involves a situation in which ‘realities exist in the form
of multiple mental constructions, socially and experientially based, local and specific, dependent for their form and content on the persons who hold them’ (1990, p. 27). In other words ‘realities are multiple and exist in people’s minds’ (Phakiti, 2014, pp. 43–44). Guba and Lincoln define relativism as local and specific constructed and co-constructed realities (2002, p. 193).

Indicating a link with the constructivist notion of reality, researchers conforming to subjectivist doctrines assume that ‘attempts to know things or find a reality are inherently and unavoidably subjective. Reality is therefore dependent upon, rather than independent of, research inquiry’ (Phakiti, 2014). Guba (1990) holds that the subjectivist inquirer and the inquired are fused into a single entity, and that findings are literally the creation of the process of interaction between the two.

Constructivism requires a dialogic approach. As Preissle points out ‘[we] practice inquiries that make sense to the public and to those we study” (2006, p. 636). In Constructivist research, dialogue with participants is essential in order to assist participants in understanding what is being studied (Phakiti, 2014). This mutual understanding allows researchers to obtain the data required for analysis. Some qualitative data, especially that involving internal, personal opinions on matters such as identity, is difficult to elicit without intervention from the researcher. According to Guba (1996), findings are elicited by the interaction between the researcher(s) and the participant(s). The result of this interaction is subjectivity in Constructivism, or Subjectivism.

Methodologically, constructivism requires researchers to get personally involved in their research contexts and with their participants. Humans interpret the world in their own individual ways, shaped by their personal, lived experiences and meaning bestowed by the culture in which they are born or raised (Creswell, 2009; Lincoln,
Lynham, & Guba, 2011), and in order to fully understand these individual realities, qualitative researchers need to immerse themselves in these environments as they gather information and apply their own interpretations which in turn are influenced by their [the researchers’] own cultures and upbringings (Brinton & Fujiki, 2003; Crotty, 1998). The social and collaborative nature of naturalistic data collection, requiring the researcher to enter into the participants’ world, entails that the researcher has well-developed social skills which facilitate their elicitation of data and assist in their attaining trusted membership status in the participant communities (Phakiti, 2014). If researchers are not able to garner the trust of the participants, this might result in data that does not provide any insights for the inquiry.

Although the choice of research paradigm does not determine a pre-existing set of research methods, interviews are commonly used. Because of the complex and personal nature of self-identity, dialogue between the researcher and the participant is important so that the participants can understand how they fit into a study. This allows for better responses as participants understand what is required of them and can answer the questions as they understand them. They are able to see and speak about how their identities took form in their own reality.

Constructivism is partly a response to the complex nature of each individual’s interpretation of the world. For this reason qualitative researchers tend to use open-ended questions. They also include other naturalistic methods, such as observation and analysis of existing texts (Angen, 2000). These methods are not without disadvantages. A disadvantage and often a limitation with constructivist research is that the researchers themselves are the research tools. The subjectivity of the researchers can also be a limitation in itself. All researchers develop their own deductions shaped by their own cultures and life experiences which, in turn, can lead to differing conclusions about the phenomena undergoing investigation. This might affect the validity of the
study (Phakati, 2014). This has been avoided in the present study through the contributions of another researcher who cross-checked the questions used in the interviews and the coding used in the analysis of the interviews.

6.2 Paradigm: Mixed Methods Research

In many cases the use of one paradigm only is not sufficient to provide a complete analysis of the data needed to thoroughly answer the researcher’s questions. A more detailed analysis requires a Mixed Methods Research approach. MMR, which tends to combine qualitative and quantitative techniques for gathering data for research (Tashakkori & Creswell, 2007; Tolich & Davidson, 2011), is not a new paradigm (Morse, 2003). MMR developed in the wake of the ‘paradigm wars’ as the result of the continued development and perceived legitimacy of both quantitative and qualitative methods and the paradigms shaping them.

Teddlie and Tashakkori (2003) believe that an advantage of MMR is that it provides the opportunity to simultaneously answer confirmatory and exploratory questions, thus allowing the verification and generation of theories within the same study. As Punch (1998, pp. 16–17) points out:

> [q]uantitative research has typically been more directed at theory verification, while qualitative research has typically been more concerned with theory generation. While that correlation is historically valid, it is by no means perfect, and there is no necessary connection between purpose and approach. That is, quantitative research can be used for theory generation (as well as verification), and qualitative research can be used for theory verification (as well as generation).
MMR can merge the best of qualitative and quantitative methods and researchers are increasingly turning to MMR in order to answer complex questions. MMR has become the new method of choice, especially in the field of applied linguistics (Ivankova & Creswell, 2009; Ivankova & Greer, 2015; Riazi & Candlin, 2014). In an attempt to explain the nuances and complexity of MMR, Swimme and Berry (1992, p. 12) argue that the reduction of knowledge or understanding to one-dimensionality is similar to reducing a full symphony to a single note.

6.2.1 Advantages and Disadvantages of MMR

The basic premise of MMR is that the simultaneous combination of multiple methods is worth more than the sum of its parts. MMR allows researchers to counteract the bias and weaknesses which might be inherent in non-mixed methods. In the words of Tolich and Davidson (2011, p. 167),

... although the individual methods may be flawed, fortunately the flaws in each are not identical. A diversity of imperfection allows us to combine methods, not only in order to gain their individual strengths, but also to compensate for their particular faults and limitations.

Thus through diversity in method that weaknesses and limitations are compensated for by a combination of strengths. MMR is often advantageous over other methodologies such as solely quantitative or qualitative approaches when addressing complex research questions. The findings and inferences using MMR are often more comprehensive because a greater diversity of views can be presented though the combination of approaches (Teddlie & Tashakkori, 2003).
Mixing methods creates a more comprehensive representation of a problem in practice (Greene, 2007; R. B. Johnson & Onwuegbuzie, 2004; Tashakkori & Creswell, 2007) and can provide a more comprehensive account of the processes involved in learning an L2 in a multidimensional manner. Furthermore, MMR can provide greater insights into the cultural, social and political factors which influence the development of communicative competence of each individual (Ivankova & Greer, 2015). MMR provides, more importantly, a method by which researchers can investigate phenomena within cultures (see Copland, Garton, & Burns, 2014), something that methods which require total objectivity (for example, solely quantitative methods) could not do.

There are five elements in MMR which benefit researchers over other mono-methodological approaches, namely triangulation, complementarity, development, initiation, and expansion (Greene, Caracelli, & Graham, 1989).

Triangulation refers to the process of using different methods on a single set of data in order to seek a corroboration of results and provide a better analysis of the data (Brinton & Fujiki, 2003). Based on the practice of navigating by the stars using three different fixes and choosing the point of intersect as a direction, triangulation is ‘the use of multiple methods ... to secure an in-depth understanding of the phenomenon in question’ (Denzin & Lincoln, 1994, p. 2). Triangulation can be effected in different ways using multiple data sources, different theories, methods, perspectives of researchers, and disciplines (Janesick, 1994). By counteracting the bias inherent in a researcher’s cultural or professional background, triangulation increases the validity of inferences and analyses (Greene et al., 1989).

The second element, complementarity, refers to the increased validity of results and findings through the use of results from one analysis to qualify a second or third study. Complementarity assumes that, in the same study, qualitative and quantitative
research must be different and therefore ask different but related questions (Barbour & Barbour, 2003; Sandelowski, Voils, & Barroso, 2006).

Development is a methodological process which allows one approach to be carried out and the findings analysis and the use of these results to inform the choice and development (R. B. Johnson & Onwuegbuzie, 2004) of subsequent, different approaches (see Beck, 2005). Initiation refers to the process in which the researcher uses the ‘paradoxes and contradictions’ (Onwuegbuzie & Leech, 2004, p. 770) of the first method to reframe the research questions and begin a different second method (Hanson, Creswell, Plano Clark, Petska, & Creswell, 2005). The last element, expansion, is apparent when researchers use different methods with different research questions to increase the depth and breadth of data and findings (Greene et al., 1989; R. B. Johnson & Onwuegbuzie, 2004). In other words, researchers employ two or more methods to development a more comprehensive picture of the phenomena they are investigating (Huey, 2006).

In addition to increasing the validity of results, combining methods in MMR provides other benefits. Participants’ perceptions of constructs can be monitored alongside the frequency of the construct (see McWayne, Melzi, Schick, Kennedy, & Mundt, 2013). Weaknesses of mono-methodological approaches can be lessened in MMR by the use of one approach to accommodate for weakness in the first. The strengths of each approach combine to provide more insightful analyses and comprehensive inferences (see Cornellie, Clartebout, & Desmet, 2012; Danzak, 2011). The use of MMR benefits researchers as it can provide more comprehensive answers to research inquiries by combining several methods compatible with applied linguistics, such as pre-post tests, learning logs, writing samples, and assignment results.
The MMR paradigm is not without its detractors and faults. Some researchers such as Erzberger and Prein have argued against a formal rift between qualitative and mixed media research, because they believe that it confines qualitative methods to the initial stages of research (1997). This is because quantitative approaches attempt to verify a theory (T Teddlie & Tashakkori, 2003), whereas qualitative approaches focus more on theory generation and exploration of concepts. MMR benefits the researcher because, unlike other approaches, it focuses on the research question, what is being studied and the type of answers required (J. Smith, 1991). By doing this, it is possible for researchers using an MMR approach to answer both exploratory (qualitative) and confirmatory (quantitative) questions, thus generating and confirming a theory in one study.

Researchers identify weaknesses in MMR (Creswell & Plano Clark, 2011; Greene, 2007; Tashakkori & Teddlie, 2010), which include problems relating to differences in researchers’ practices within qualitative or quantitative paradigms; the nature of MMR questions; the unique and often complicated characteristics of MMR research design and analysis; the fact that MMR researchers are required to have working knowledge of both qualitative and quantitative methods (Doyle, Brady, & Byrne, 2009); the fact that MMR can be expensive and time-consuming (R. B. Johnson & Onwuegbuzie, 2004); the problems associated with assessing the quality of MMR studies; and issues relating to the background and practices of researchers of different disciplines, paradigms and cultures (Ivankova & Greer, 2015).

Another issue is the scope of an MMR project. As Riazi and Candlin caution, “theorising and conceptualising a problem as an integrated but multi-layered whole … is not an easy task, and is likely to present challenges for researchers” (2014, p. 154). Creswell and Plano Clark (2011) and Teddlie and Tashakkori (2009) believe that a sole
researcher or one inexperienced in implementing mixed methods can easily become overwhelmed when conducting MMR.

6.3 The Design of MMR in this Study

In the field of MMR, studies need to be designed appropriately to make the most of this paradigm. Each study is different and MMR encapsulates this individuality of research by allowing the researchers to choose which methods they intend to mix, which research tools they will employ and which way they intend to do the mixing. Mixing quantitative and qualitative methods is what is essential in MMR. There are four key elements in MMR research design: strand; timing; weighting; and mixing.

A strand is comprised of one approach (qualitative, QUAL, or quantitative, QUAN), incorporating the posing of the research questions, the collection of data, and the findings and results (Teddlie & Yu, 2007). An MMR study must contain at least one qualitative strand and one quantitative strand, although it may contain more than one of each.

Timing refers to the temporal relationship that exists between the different strands in any given MMR study. Depending on what is being studied and the research questions involved, an MMR researcher may choose to use a ‘sequential’ data gathering method in which the data is collected in separate phases of the project. Either the qualitative data is gathered first followed by the quantitative data, once the qualitative strand has been analysed, or vice versa. Creswell (2009) explains that when the qualitative data is collected first, the researcher is intending to study the participants in their respective environments and will follow up with either specific surveys or a large-scale quantitative data collection to represent a sample of the population.
When time is limited (as is often the case when working with busy individuals) researchers may find it more useful to gather both strands of data at more or less the same time. This is considered a ‘concurrent’ MMR design (see Miyazoe & Anderson, 2010). This is much more convenient for the participants of the project as it shortens the length of time required to be taken from their schedules, even if it means the workload on the researchers is heavier, necessitating them to employ multiple strategies simultaneously (Teddlie & Tashakkori, 2009). The shorter time required in a concurrent design also reduces the financial burden and the costs involved in conducting the study (Creswell & Plano Clark, 2011; Morse & Niehaus, 2009). Figure 2 below provides a conceptual diagram of a typical concurrent MMR design.

A third element in MMR is weighting. This refers to the priority given to strands within a project. MMR designs can have a qualitative weighting, quantitative weighting or equal weighting. The type of priority given to the strands reflects the interest of the researcher, the nature of the research questions, and the intended audience (Creswell, 2009). In a concurrent MMR study, equal weight is usually given to both strands.

Mixing concerns the integration of the qualitative and qualitative data. Ivankova and Greer (2015, p. 68) provide succinct definitions for the three types of mixing in MMR:

1. *Combining*: mixing quantitative and qualitative methods during the interpretation of both quantitative and qualitative results.
2. *Connecting*: mixing quantitative and qualitative methods during data collection, that is, quantitative or qualitative data is collected based on the results of data analysis in the previous qualitative or quantitative strand.
3. *Merging*: mixing quantitative and qualitative methods during data analysis, that is, quantitative and qualitative data from different strands are analysed together.
In a form of ‘embedding’, the researcher incorporates the entire result of one strand into the primary strand in order to provide support information.

Due to the demands of the present project, a concurrent design was chosen as it would not have been possible to have returned to South Africa at a later date to follow up with the original participants. The qualitative data was collected at the same time as the quantitative data during the same meeting with the participants, often within the same recording. For consistency, this method was repeated with the NZ-based participants.

**6.4 Framework of the present study**

A conceptual framework incorporates the various elements in the study and organises them in a way that illustrates the course of the research, providing a map in which the connections between variables are displayed. The framework for this study is presented in Figure 3.
The framework maps out how the elements in this study are connected. The framework for the present study incorporates the two strands used in this MMR approach. The QUAN strand involves the initial L2 accent of the Afrikaans speakers in South African (ASA cohort) and the current pronunciation observed in the Afrikaans speakers who have relocated to New Zealand (ANZ cohort). The QUAL strand deals with the identity of the participants and environmental factors which influence the motivation to change.

Environmental factors involve concepts such as the feelings of isolation, homesickness and a need to belong to the new country, push factors from South Africa, and pull factors to New Zealand, discrimination against their identities or accents, and perceptions of New Zealanders. It is then a logical progression to consider how these elements combine to form motivation which informs a possible change to the way in which the participants speak. The current study presents the two strands individually before combining them to discuss the differences in pronunciation observed in the ANZ cohort. The QUAL strand uses the data gathered from the interviews, using the questionnaire; both describes later in this chapter. The QUAN strands uses the data gathered from the passages read by the participants and analyses selected sounds for aspiration (/p/, /t/ and /k/), articulation (/t/ and /h/), and formant values (KIT, DRESS, TRAP, LOT, GOOSE and START).
In order to address the research questions in this study, both quantitative (QUAN) and qualitative (QUAL) data are required. This necessitates complementarity in the present study. Again, this study looks for (quantitative) differences in pronunciation of cohorts of participants and seeks to qualify the quantitative results by seeking possible (qualitative) reasons behind the participants’ own perspectives and experiences. The data collection in the present study required the use of interviews employing open-ended questions as well as a passage that was read by each participant and recorded.

Each participant was asked to read the selected passage, *Comma Gets a Cure* (see Appendix 3). The passage was chosen as it had been successfully used in past studies on pronunciation. This passage was recorded under similar conditions for each speaker and therefore provided standardisation for the quantitative strand. This increased the validity of findings which were observed in the data (see Tolich & Davison, 2011, in the section on participants).

The present study has been given a quantitative weighting because the qualitative data informs the results of the quantitative data, that is, the data gathered from the participants on identity and environmental factors is used to draw inferences on why the participants may have changed their accents post-relocation. The actual differences in pronunciation are dealt with in the quantitative strand.

Merging was used in the present study. The data on the self-perception of identity provided by the participants was used to explain certain patterns that occurred in the analysis of their respective phonological systems.
6.5 The Research Questions and the Significance of the Research

This study is relevant in New Zealand because of the changing nature of the national population. There has been a steady increase in the number of South Africans migrating to New Zealand throughout the later twentieth century, peaking between 1994 and 2004 and presumably as a result of the change in the South African government in 1994. During and following this period, South Africans and their accents became more commonplace in New Zealand and they began entering into all echelons of society in their adopted country. Their good education and qualifications often saw them working in specialist professions such as law, medicine and engineering. More recently there have been instances of South African comedians who have made their career in NZ, and South Africans who have become news anchors, reporters, and sporting figures. Many South Africans have become public figures, introducing new English accents into the country.

Anecdotal evidence indicates that there are new differences in the English pronunciations of Anglophone South Africans in New Zealand and Afrikaans-speaking South Africans in New Zealand. There seems to be a change in pronunciation taking place amongst the Afrikaans-speaking population and the present study set out to investigate the differences between the accents of a selection of Afrikaans South Africans who had relocated to New Zealand and a selection who had remained in South Africa, attempting to isolate reasons why these accents may have changed.

The research questions that this thesis addresses are:

1. After relocation to New Zealand, does the L2 English pronunciation of L1 Afrikaans speakers approximate towards that of L1 New Zealand English speakers?
2. If there is a difference, what factors might motivate a change in pronunciation?

3. Is the self-identity of the L1 Afrikaans speaker a factor in these differences?

This study is a contribution to the current literature because it considers migrants who have relocated to New Zealand and investigates their L2 English pronunciation to determine whether it is different from that of their Afrikaans-speaking counterparts in South Africa. The existence of such a difference, because of the age of the participants and the presumed fossilised nature of their L2 English interlanguage in South Africa, challenges the perception that age, applied in SLA contexts (see Flege, 1991; Flege et al., 1999) by extension of Lenneberg’s (1967) Critical Period Hypothesis, inhibits the acquisition of native-like L2 pronunciation after puberty. A late change in pronunciation also implies that the interlanguage of the participants has been reengaged, therefore, challenging perceptions that fossilisation (particularly of pronunciation) is, in some cases, a permanent and irreversible state (Scovel, 1988; Selinker, 1972). This study considers whether social factors, such as identity, influence the development of L2 pronunciation in the context of post-relocation to New Zealand.

### 6.6 The Participants

For the purpose of this study, a total of 39 participants were divided into five groups dependent upon their L1 and current place of residence.

- Group 1: Afrikaans-speaking (Afrikaner) South Africans living in South Africa
- Group 2: English-speaking (Anglophone) South Africans living in South Africa
- Group 3: New Zealand English-speakers (Anglophone/Pakeha) living in New Zealand

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14 Afrikaans-speaking requires them to be L1 Afrikaans
15 English-speaking requires them to be L1 English
• Group 4: Afrikaans-speaking (Afrikaner) South Africans now residing in NZ
• Group 5: English-speaking (Anglophone) South Africans now residing in NZ

Participants in groups 4 and 5 may have become NZ citizens, but it was a requirement that they were born and raised in South Africa and had emigrated to NZ. All participants were over 18 years of age. Table 2 on the next page compares the different cohorts by numbers of participants and their L1.

<table>
<thead>
<tr>
<th>L1</th>
<th>No. of participants</th>
<th>No. of female participants</th>
<th>No. of male participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASA Afrikaans</td>
<td>12</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>SAESA English</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>ANZ Afrikaans</td>
<td>7</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>SAENZ English</td>
<td>8</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>NZE English</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 2 Number of participants by cohort and L1

Afrikaans-speaking participants grew up in a family environment in which Afrikaans was the first language at home, the language of instruction and learning at school, and their dominant language, that is, the language used as first language of choice on a daily basis.

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16 Maori word for a New Zealander of European descent
The English speakers (Anglophone South Africans) used English at home as they were growing up and as their language of instruction at school (although in a few cases, some of these participants attended bilingual or Afrikaans-only schools because of their geographical locations), as well as it being their first language and dominant language.

The Anglophone (Pakeha) speakers from NZ grew up in monolingual environments with home, education, church (if applicable) and everyday communication in the medium of NZE. NZE speakers of largely Maori descent were omitted from the present study because they often use a different dialect of English with distinctly different (Maori English) pronunciation.

The Afrikaner participants normally started to learn English in the first or second year of school. They were often (but not invariably) taught by other L1 Afrikaans speakers who employed L2 English with L2 accents of English, and often the participants did not use much English outside the classroom as children. As adults they would have been exposed to more English and many might even have used it on a daily basis. If they did not elect to use English, then they were at least exposed to it on a daily basis, even in the most remote corners of the Northern Cape where Afrikaans has long been the dominant language. They would certainly have been exposed to it in the media, on television, and (since 1994) increasingly in government offices and other public places. They might have chosen to read only Afrikaans newspapers, books and magazines and watch only Afrikaans television and listen only to Afrikaans radio programmes, but this would have been a conscious choice. They could also choose to speak Afrikaans when shopping and, in most areas in the country, would be responded to in Afrikaans. However, there would also be occasions in business, commerce and socially (and these have increased since 1994) in which they would be required to use English and would not have had the option to use Afrikaans. The first time the participants would have been required to communicate exclusively in English on a
daily basis only and not to have the option to revert to Afrikaans, was when they relocated to NZ, where Afrikaans would have been relegated to a language used at home only or with other Afrikaans-speaking expatriates.

Although the participants were selected using convenience sampling (Tracy, 2013), it was by design that the South African participants were selected from different parts of South Africa. The individuals were not known to the author personally but came from personal and professional networks, and friends and family of the author’s supervisor. Although this was not a specifically selected sample, there were a number of independent variables. These variables included a range of geographical locations, education levels and ages to present a cross-section of the population. Variables which were restricted were also age (participants in all cohorts were over the age of 18); L1 (Afrikaans for ASA and ANZ cohorts, and English for SAESA, SAENZ and NZE cohorts); and migrant status (ex-South Africa for ANZ and SAENZ cohorts). Participants in the ASA and SAESA cohorts were South African nationals, while the participants in the NZE cohort were New Zealand nationals. Males and females were included amongst all the cohorts.

The participants came from a variety of different backgrounds from farmers to university lecturers; all were literate and had attained at least secondary education in South Africa. Most of the New Zealand participants had some form of tertiary qualification. There was a spread of ages in both countries and most participants were of the middle class in both countries. There are differing numbers of participants between the groups which was unavoidable. Data was collected in specific trips to South Africa and only those who responded to the requests were interviewed and recorded.
The South African participants came from Bloemfontein (mark 8 on the map), Cape Town (2), East London (14), Griekwastad (6), Harrismith (9), Johannesburg (10), Kimberley (7), Kleinmond (1), Lutzville (3), Mtunzini (12), Pietermaritzburg (13), Pretoria (11), QwaQwa (16), Saalskop (5), Upington (4), Vredendal (3), and The Wilderness (15). These areas represent the Western Cape, Eastern Cape, KwaZulu-Natal, the Free State, Northern Cape and Gauteng (see figure 4 for an illustration).
Figure 4 Map of South Africa with locations of participants
This study labels the participants in such a way as to provide information on their L1, gender and location, that is, M/F labels for gender; SAE/A/NZE labels for South African English, Afrikaans, or New Zealand English; SA/NZ labels for the participants current country of residence; the number represents the participant in the group, e.g. FSAESA5 is female, South African English, South Africa, number 5 in the group.

Six SAE speakers were recorded:

<table>
<thead>
<tr>
<th>Participant</th>
<th>Location in South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSAESA1</td>
<td>Johannesburg</td>
</tr>
<tr>
<td>FSAESA2</td>
<td>Mtunzini</td>
</tr>
<tr>
<td>FSAESA3</td>
<td>Kimberley</td>
</tr>
<tr>
<td>FSAESA4</td>
<td>Johannesburg</td>
</tr>
<tr>
<td>MSAESA1</td>
<td>Pretoria</td>
</tr>
<tr>
<td>MSAESA2</td>
<td>East London</td>
</tr>
</tbody>
</table>

Table 3. SAESA Participants
There were twelve Afrikaans-speaking participants:

<table>
<thead>
<tr>
<th>Participants</th>
<th>Location in South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASA1</td>
<td>Kleinmond</td>
</tr>
<tr>
<td>FASA2</td>
<td>Bloemfontein</td>
</tr>
<tr>
<td>FASA3</td>
<td>Kimberley</td>
</tr>
<tr>
<td>FASA4</td>
<td>Mtunzini</td>
</tr>
<tr>
<td>FASA5</td>
<td>Griekwastad</td>
</tr>
<tr>
<td>FASA6</td>
<td>Lutzville</td>
</tr>
<tr>
<td>FASA7</td>
<td>Vredendal</td>
</tr>
<tr>
<td>FASA8</td>
<td>Lutzville</td>
</tr>
<tr>
<td>FASA9</td>
<td>Saalskop</td>
</tr>
<tr>
<td>MASA1</td>
<td>QwaQwa</td>
</tr>
<tr>
<td>MASA2</td>
<td>East London</td>
</tr>
<tr>
<td>MASA3</td>
<td>QwaQwa</td>
</tr>
</tbody>
</table>

Table 4. ASA Participants

The New Zealand participants were obtained from two major suburban centres: Dunedin and Auckland. Some of the participants have lived in other regions than the cities in which they were interviewed; however, relocating around the country was not a common theme among the South Africans in New Zealand groups. Their current location and the place where they grew up in South Africa are both listed.
<table>
<thead>
<tr>
<th>Participant</th>
<th>LoR in NZ (years)</th>
<th>Location in NZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSAENZ1</td>
<td>10+</td>
<td>Auckland</td>
</tr>
<tr>
<td>FSAENZ2</td>
<td>10+</td>
<td>Auckland</td>
</tr>
<tr>
<td>FSAENZ3</td>
<td>10+</td>
<td>Dunedin</td>
</tr>
<tr>
<td>FSAENZ4</td>
<td>10+</td>
<td>Dunedin</td>
</tr>
<tr>
<td>FSAENZ5</td>
<td>5</td>
<td>Dunedin</td>
</tr>
<tr>
<td>MSAENZ1</td>
<td>10+</td>
<td>Auckland</td>
</tr>
<tr>
<td>MSAENZ2</td>
<td>10+</td>
<td>Auckland</td>
</tr>
<tr>
<td>MSAENZ3</td>
<td>10+</td>
<td>Dunedin</td>
</tr>
</tbody>
</table>

Table 5. SAENZ Participants

There are two participants who are of South African Indian background, FSAENZ5 and MSAENZ3. It is already known that South African English has a number of distinct dialects, of which South African Indian English is one (see Bowerman, 2004; Lanham, 1996); however, these participants attended “Model C” schools, and accordingly speak a variety of English closer to that of standard SAE. In addition, as observed by Silva (1997, p. 3) “… as the ethnic barriers break down in the new society, these old, enforced differences have begun to blur.”

17 Model C schools are schools which, during the Apartheid regime, taught White children only and were located in historically White areas. When the Apartheid government began to fall in the early 1990s, certain schools voted on whether or not to allow Black/Coloured students to enrol. Those that did were designated “Model C” schools. The medium of education in Model C schools is typically English from the first year and, as a consequence, these Black/Coloured students became highly proficient users of English and typically spoke with a “White” South African English accent (Sweetnam Evans, 2015, pp. 52–53)
The Afrikaans-speaking participants were:

<table>
<thead>
<tr>
<th>Participant</th>
<th>LoR in NZ (years)</th>
<th>Location in NZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>FANZ1</td>
<td>10</td>
<td>Dunedin</td>
</tr>
<tr>
<td>FANZ2</td>
<td>10+</td>
<td>Dunedin</td>
</tr>
<tr>
<td>FANZ3</td>
<td>6</td>
<td>Dunedin</td>
</tr>
<tr>
<td>MANZ1</td>
<td>10+</td>
<td>Dunedin</td>
</tr>
<tr>
<td>MANZ2</td>
<td>10+</td>
<td>Dunedin</td>
</tr>
<tr>
<td>MANZ3</td>
<td>&gt;1</td>
<td>Dunedin</td>
</tr>
<tr>
<td>MANZ4</td>
<td>10+</td>
<td>Dunedin</td>
</tr>
</tbody>
</table>

Table 6 ANZ Participants

The NZE participants came from a variety of towns/cities throughout New Zealand. However, all NZE speakers were in living in Dunedin at the times of the interviews.
### Participants

<table>
<thead>
<tr>
<th>Participants</th>
<th>Origin in NZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>FNZE1</td>
<td>Dunedin</td>
</tr>
<tr>
<td>FNZE2</td>
<td>Palmerston North</td>
</tr>
<tr>
<td>FNZE3</td>
<td>Christchurch</td>
</tr>
<tr>
<td>FNZE4</td>
<td>Auckland</td>
</tr>
<tr>
<td>MNZE1</td>
<td>Dunedin</td>
</tr>
<tr>
<td>MNZE2</td>
<td>Dunedin</td>
</tr>
</tbody>
</table>

Table 7 NZE Participants

### 6.7 Equipment Used

The interviews were all recorded on the Handy Recorder H4n, a product of Zoom. The raw data was saved on an SD card and later transferred to a laptop computer. The decision to use the Handy Recorder H4n was made for the researcher as it was the only available recorder owned by the department. Other options were not considered due to the cost factor and that the Handy Recorder H4n had all the necessary high quality recording and playback functions with stereo input. A limitation was that it occasionally recorded a lot of background noise and this caused loss of some information in one instance. This was fixed afterwards and caused no more difficulty throughout the rest of the data collection.

The interviews were transcribed using Express Scribe, with the use of a transcription pedal to assist in the typing process.
As previously mentioned, PRAAT was used to analyse the quantitative data on vowels. The statistics programme, statistical package for social sciences (SPSS), was used to calculate whether there was significance between the data from the different cohorts.

6.8 Data Collection and Analysis

The data collection was completed over two stages in two countries. The first stage involved travelling to South Africa in order to obtain the data for two cohorts, namely Afrikaans-speaking South Africans who live in SA (Cohort 1 - ASA) and English-speaking South Africans who live in SA (Cohort 2 – SAESA). Participants in six provinces within the country were interviewed; the Western Cape, Northern Cape, the Free State, Gauteng, KwaZulu-Natal and the Eastern Cape. The nature of these participants and the rationale behind their selection is explained in the following section. Using a high quality digital audio recording device, open-ended one-on-one interviews and specific readings with each participant were recorded.

The South Africa-based participants were interviewed during two trips to South Africa in 2014. The decision to gather speakers from all over the country was made prior to departure because it would provide data from a wider geographic area, and Afrikaans and some accents of SAE change regionally. In short, greater geographic distribution will reduce variation that cannot be explained without the appropriate control, effectively allowing for more comprehensive inferences to be drawn on this factor. The ASA participants were given slightly different questions from the SAENZ and ANZ cohorts as they were residing in South Africa and not in New Zealand. Participants in SAESA (English-speaking/Anglophone South Africans) were recorded reading from the same text. Participants in SAESA were not interviewed. There were
between 30 and 60 minutes of data collected from each speaker. The interviews were transcribed.

The second stage of the data collection required data to be collected in NZ from three separate cohorts, namely English-speaking (Anglophone/Pakeha) New Zealanders (Cohort 3 - NZE), Afrikaans-speaking (Afrikaner) South Africans living in NZ (Cohort 4 - ANZ), and South African English-speaking (Anglophone) South Africans living in NZ (Cohort 5 - SAENZ). These participants were from two locations in NZ, namely Auckland and Dunedin. The process was the same as that used in the first stage, that is, each participant was interviewed and recorded reading the same passage. Each interview and reading produced between 30 and 60 minutes of data. The NZE speakers were not interviewed but only recorded reading the passage. The interviews were transcribed for use in the qualitative analysis.

Tolich and Davidson (2011) stress that quantitative methods require standardisation in order to provide validity to the study which in this case done by the researcher controlling the environment of the study to such a degree that each reading is conducted in the same conditions. This was achieved by using the same reading for each participant. The reading (see appendix 3), called *Comma Gets a Cure* (McCullough, Somerville, & Honorof, 2000), was chosen because it contained several tokens of each vowel and consonant which was to be analysed. In total, the reading contained 377 tokens per speaker. The breakdown per vowel is shown in Table 7 below:
<table>
<thead>
<tr>
<th>Sound to be analysed</th>
<th>Number of tokens per reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>/p/</td>
<td>9 (2%)</td>
</tr>
<tr>
<td>/t/</td>
<td>20 (5%)</td>
</tr>
<tr>
<td>/k/</td>
<td>14 (4%)</td>
</tr>
<tr>
<td>/h/</td>
<td>29 (8%)</td>
</tr>
<tr>
<td>/r/ - Onset &amp; Intervocalic</td>
<td>49 (13%)</td>
</tr>
<tr>
<td>/r/ - Coda &amp; Syllable Final</td>
<td>72 (19%)</td>
</tr>
<tr>
<td>TRAP</td>
<td>32 (8%)</td>
</tr>
<tr>
<td>DRESS</td>
<td>29 (8%)</td>
</tr>
<tr>
<td>KIT</td>
<td>49 (13%)</td>
</tr>
<tr>
<td>LOT</td>
<td>42 (12%)</td>
</tr>
<tr>
<td>GOOSE</td>
<td>28 (7%)</td>
</tr>
<tr>
<td>START</td>
<td>4 (1%)</td>
</tr>
<tr>
<td>Total</td>
<td>376 (100%)</td>
</tr>
</tbody>
</table>

**Table 8 List of Tokens**

The environments of the tokens are listed in their relative section in the next chapter; please refer to these tables for further information regarding this. All participants read the reading in the same fashion and almost all tokens were produced by the each
speaker. Occasionally, a speaker mispronounced a word (such as FNZE3 saying *suburb* rather than *superb*). Such tokens were excluded from the overall analysis.

It was due to constraints in time and workload that the decision was made to not include other classes of vowels, such as NURSE, FOOT, STRUT and the diphthongs. It is because of the realisations of these vowels and consonants in NZE that they were selected as they will provide a smaller analysis with the intention to maintain a representation of the dialects.

### 6.9 Analysis of the data

The following section will describe the method of analysis which was carried out for the purpose of this study. It firstly describes the qualitative data which was collected in the interviews (§6.8.1) before moving on to explain how the quantitative data was analysed (§6.8.2). Finally, §6.8.3 provides information on how the two strands were combined, using the qualitative strand to inform and qualify the results from the quantitative data.

#### 6.9.1 Qualitative Strand: Data on Identity and Environmental Factors

The qualitative data was collected using interviews with a series of open-ended questions (refer to Appendix 1 for a copy of the question-sheet), specifically designed to elicit information relating to language and identity. The interviews were recorded using a digital audio recorder and the resulting files transcribed into computer files.

Once transcribed, patterns were found in the data and on the basis of these patterns the data was coded using the following codes. The coding was cross-checked by the researcher’s supervisor.
• Reasons to move
  o Discrimination
  o Security
  o Opportunity
  o Economy and politics
• Consequences of moving
  o Discrimination
  o Isolation and displacement
  o Loss of roots
  o Loss of family
• Identity
  o Afrikaner/Afrikaans
  o South Africans (incl. Afrikaans- or English-speaking)
  o New Zealanders/Kiwis
• Language
  o Language change
  o Language loss

The patterns identified in the qualitative strand provide insights into why participants would want to, or might feel like they have to, change the way in which they speak English. In other words, it provided explanations for their motivations to change.

The qualitative data was compared with the results provided by an analysis of the quantitative data.
6.9.2 Quantitative Strand: Phonological Data

The quantitative strand involved analysing the recordings of the reading (see appendix 3) to identify the number of tokens of each sound presented. Once the total number of tokens of each sound was tallied, each participant’s reading was analysed and classified token by token. Second opinions were sought from other linguists in the academic department. Consonants were analysed by ear with more second opinions sought from linguists in the department. The consonants were sorted by their realisation:

/p/, /t/, /k/ - aspirated vs not aspirated
/h/ - voiced vs voiceless
/r/ - non-NZE realisation [r] vs NZE-like realisation [ɾ]

The formants of a single vowel were found by finding the midpoint of the vowel and using the formant display option. Vowels in an unstressed position and vowels in a pre-nasal or pre-liquid environment were removed. Pre-nasal or pre-liquid vowels are affected by a transfer effect from the following consonant, changing the quality of the vowel. For the purposes of this study, the frequencies used were the first and second as these were able to effectively identify the vowels. The third and fundamental frequencies were not considered. The F1 and F2 vowels were taken by locating the midpoint of the vowel in PRAAT, and then acquiring the measurements. This was done using the F1 and F2 keys which display the first and second formant frequency values for the point specified. PRAAT was also used to produce spectrograms which illustrate graphically how a word or phrase is pronounced. Figure 5 provides an illustrated comparison of the pronunciation of /p/ between a NZE speaker who strongly aspirates the sound /p/ and an AfE speaker living in South Africa who does not aspirate the sound /p/ as is the norm in Afrikaans.
Once the data was collected, it underwent a normalisation procedure (see the following section). This process of normalisation attempts to remove the variation created by the difference in vocal tract lengths between males and females as well as any difference caused by age. The Lobanov scale for normalisation was chosen over others, such as Nearey and Labov, because it provides a more accurate representation of the data, maintaining dialectal characteristics while cancelling out physical variables.

Lastly, SPSS (statistical programme for social sciences) was used to analyse the significance of the data. Linear and logistic (for consonants on a binary system) mixed models analyses (LMER) were used to find whether the difference in pronunciation of each vowel and consonant by cohort was significant. The method used for normalisation ran the procedure to normalise vowels across speakers for two reasons. There as few tokens of some words which makes normalisation by word difficult, especially for the vowel analysis. The behaviour for the majority of the consonants is categorical in that there is little variation by word. For some consonants (see /t/) there is some variation but for consistency in modelling, word was not used as a random effect.
Normalised F1 and F2 values were analysed separately. The analysis required a subject variable and ID (the code of the participant) was used and Cohort was used as a repeated variable. The dependent variable changed depending on the analysis: for vowels either F1 or F2, and for consonants, aspiration (/p/, /t/, and /k/), voicing (/h/) or style of articulation (/r/). The variable used was cohort and this was used as a fixed factor. The normalised data for the vowels and the proportion of realisations for consonants were used for the calculations. In order to answer research question 1, whether or not the ANZ L2 pronunciation of English approximated towards that of L1 NZE speakers, for each analysis the data from the NZE speakers was used as a reference point. This allowed for comparisons between the various data sets and NZE to be made. Upon analysis, SPSS produces an output which displays the values for the significance for the chosen data.

6.9.3 Combining the strands

In the final part of the analysis, the findings from the qualitative strand of the present study were used to support and explain the results seen in the quantitative strand. The analysis of the interview data, in which participants spoke of their self-perceptions of identity and the environmental factors influencing their lives, was interpreted along with the qualitative results which showed a tendency for a group of participants to approximate towards NZE in their phonological system post-relocation to New Zealand. The researcher then looked for a correlation between a change of identity and a change of L2 accent.
6.10 Vowel normalisation

A problem that is encountered in most sociolinguistic studies involving vowel acoustics is that the physiological properties, such as vocal tract length, can interfere with the ability to plot vowels accurately. In studies such as the present one, vowels are represented on a two dimensional space. That is, vowels are illustrated in the mouth space by plotting the first formant against the second formant, both measured in frequency (Hz). This allows researchers to connect differences between individual speakers or speaker groups with differences in vowel articulation (Langstrof, 2006b).

It is already well-known in the field of vowel acoustics that physiological features of the individual speaker affect the vowels they produce. Age and gender (Disner, 1980; Geng & Mooshammer, 2009) all affect the length of the vocal tract, thereby inherently affecting the value of the formants measured. This means that it is difficult to draw accurate comparisons of the population being studied. Often, women have shorter vocal tract lengths relative to men, producing vowels of a high frequency when measured. Children have shorter vocal tracts than both adult men and women, again affecting the measured formants. The present study does not consider children or adolescents, removing this variation. It does, however, consider both female and male participants; therefore, normalisation of the data is required.

Vowel normalisation was developed with four general objectives (Disner, 1980; Thomas, 2002):

1) To remove variation in data caused by physiological differences, such as vocal tract length and mouth size.
2) To maintain dialectal and sociolinguistic distinctions in vowel quality.
3) To reduce the overlap of different vowels in the vowel space.
4) To provide a model of the cognitive processes humans use to normalise the speech of different individuals.

While there are many different methods of normalisation, such as the Lobanov method (Lobanov, 1971), Labov ANAE method (Labov, Ash, & Boberg, 2006) and Nearey methods (Nearey, 1977), each has its own advantages and disadvantages. Detailed overviews and comparisons are provided by Adank et al. (2004) and Flynn and Foulkes (2011), which works through each of their chosen methods with the same set of data to provide comparisons on accuracy. Following the information found in the article and an informative review provided by Thomas and Kendell (2007), the raw data for this thesis will be normalised using Lobanov’s method. Several studies have found that Lobanov’s method is effective in reducing the physiological variations of individual speakers while maintaining the phonological distinctions (Adank et al., 2004; Clopper, 2009; Hindle, 1976). The equation for the normalisation procedure as written in Adank et al. (2004, p. 3101) is given below:

$$F_{ti}^{Lobanov} = \frac{F_{ti} - \mu_{ti}}{\delta_{ti}} F_{ti} - \mu_{ti} \delta_{ti}$$

Where $F_{ti}^{Lobanov}$ is the normalised value for the formant, $\mu_{ti}$ is the mean frequency value across the vowels of the study for the speaker $t$, and $\delta_{ti}$ is the standard deviation of the speaker’s formant $n$ (Adank et al., 2004; Thomas & Kendall, 2007). Using this equation, the raw normalised vowel data was put into NORM (Thomas & Kendall, 2007) and normalised F1 and F2 formant values were produced for each speaker. This data was used for the subsequent LMER analyses.
Chapter 7

Results - Quantitative Data

7.0 Overview

This chapter records the data gathered in the study and comprises two sections, dealing first with consonants and then vowels. Each section contains an overview of the tokens for each participant as well as the results of the LMER analyses. This shows whether there is a significant difference between the realisations of ANZ, ASA, SAENZ and SASA to that of the NZE speakers.

7.1 Quantitative Data – Consonants

This section considers the consonants produced by the participants and how they were realised during the reading. Token number is represented by proportions of the realisations of each consonant produced by the participants. Almost all participants produced all tokens. There were few errors of reading or pronunciation, but these are indicated as appropriate. By using proportions, the loss of a single token is lessened in the overall analysis.

7.1.1 Realisation of /h/

In the reading passage there were a total of 12 possible tokens of /h/ and a total of 444 tokens of /h/ for all the interviews. All tokens were always word-initial and in stressed positions. The environments of /h/ are shown in the following table:
Vowel following /h/

<table>
<thead>
<tr>
<th>/ɛ/</th>
<th>/æ/</th>
</tr>
</thead>
<tbody>
<tr>
<td>/hu:/</td>
<td>/ha:/</td>
</tr>
<tr>
<td>/hɔ:/</td>
<td>/həʊ/</td>
</tr>
<tr>
<td>/hju:/</td>
<td>/hɪə/</td>
</tr>
</tbody>
</table>

Table 9 Environments of /h/

The analysis focused on two different realisations of /h/ produced by the participants. The first is the articulation of initial aspirated, voiceless [h]. The second is the unaspirated, voiced [ɦ]; the realisation in Afrikaans which is generally produced in the Afrikaner variety of English.

<table>
<thead>
<tr>
<th></th>
<th>[h]</th>
<th>[ɦ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSAESA1</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>FSAESA2</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>FSAESA3</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>FSAESA4</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>MSAESA1</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>MSAESA2</td>
<td>98</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>99.6</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Table 10 Realisation of /h/ in the pronunciation of SAE speakers in South Africa

The initial examination of the realisations of syllable initial /h/ by the SAE-speakers in South Africa shows that the voiceless aspirated [h] was the preferred realisation. There was a single token of [ɦ] which occurred in the word “huge” in the
speech of MSAESA2. This occasionally occurs in the speech of SAE speakers (Lass & Wright, 1985). Apart from MSAESA2, all participants realised /h/ as the voiceless variant 100% of the time.

<table>
<thead>
<tr>
<th></th>
<th>[h]</th>
<th>[ɦ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASA1</td>
<td>41</td>
<td>59</td>
</tr>
<tr>
<td>FASA2</td>
<td>34</td>
<td>66</td>
</tr>
<tr>
<td>FASA3</td>
<td>5</td>
<td>95</td>
</tr>
<tr>
<td>FASA4</td>
<td>68</td>
<td>32</td>
</tr>
<tr>
<td>FASA5</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>FASA6</td>
<td>45</td>
<td>55</td>
</tr>
<tr>
<td>FASA9</td>
<td>9</td>
<td>91</td>
</tr>
<tr>
<td>MASA1</td>
<td>6</td>
<td>94</td>
</tr>
<tr>
<td>MASA2</td>
<td>8</td>
<td>92</td>
</tr>
<tr>
<td>MASA3</td>
<td>63</td>
<td>37</td>
</tr>
<tr>
<td>Total</td>
<td>27.9</td>
<td>72.1</td>
</tr>
</tbody>
</table>

Table 11 Realisation of /h/ in the pronunciation of ASA speakers

The data from the ASA cohort shows that [ɦ] is the preferred realisation of the participants with an overall proportion of 72.1% of the tokens. This was 86 tokens of [ɦ]. The participants in this cohort produced [h] only 27.9% of the time. FASA5 was the only speaker who did not articulate any /h/ token as voiceless. FASA3, MASA1 and MASA2 also tended toward solely producing the voice variant. FASA4 and MASA3 were the only participants who produced more voiceless /h/ than voiced, 68% and 63% respectively.
Afrikaans speakers residing in both countries used a far greater proportion of [ɦ] than any of the English speakers. All Afrikaans speakers had examples of voicing in their realisations of /h/, regardless of country of residence. The participants living in New Zealand had a lower rate of articulation of [ɦ] as can be seen in Table 11. This is seen in the ANZ speakers realising 27.29% of tokens as [ɦ]; whereas the ASA speakers produced 72.1% of tokens as [ɦ]. The pronunciation of /h/ of the ANZ cohort diverged greatly from that of the ASA cohort as seen by 72.71% of the tokens from the ANZ participants being the voiceless variant, [h].

The NZE and SAENZ cohorts showed no difference in pronunciation of /h/ with the voiceless variant being the preferred articulation of /h/. There was one exception to this, MSAENZ3. This was on the word huge and was noted in the speech of MSAESA2 as well above, this is a feature which sometimes is exhibited in SAE (Bowerman, 2004). All NZE speakers produced [h] 100% of the time and the SAENZ participants were similar.

<table>
<thead>
<tr>
<th></th>
<th>[ɦ]</th>
<th>[ɦ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>FANZ1</td>
<td>98</td>
<td>2</td>
</tr>
<tr>
<td>FANZ2</td>
<td>98</td>
<td>2</td>
</tr>
<tr>
<td>FANZ3</td>
<td>98</td>
<td>2</td>
</tr>
<tr>
<td>MANZ1</td>
<td>68</td>
<td>32</td>
</tr>
<tr>
<td>MANZ2</td>
<td>57</td>
<td>43</td>
</tr>
<tr>
<td>MANZ3</td>
<td>68</td>
<td>32</td>
</tr>
<tr>
<td>MANZ4</td>
<td>22</td>
<td>88</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>72.71</strong></td>
<td><strong>27.29</strong></td>
</tr>
</tbody>
</table>

*Table 12 Realisation of /h/ in the pronunciation of ANZ speakers*
Below is shown the proportions of aspiration by gender and cohort:

<table>
<thead>
<tr>
<th>Speaker Group</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASA</td>
<td>25.67</td>
<td>28.8</td>
</tr>
<tr>
<td>ANZ</td>
<td>53.75</td>
<td>95.67</td>
</tr>
<tr>
<td>NZE</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>SAENZ</td>
<td>99.3</td>
<td>100</td>
</tr>
<tr>
<td>SAESA</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 14: Proportion of /h/ aspiration by speaker group and gender

The table above shows that there are differences in the proportion of /h/ by gender for the ANZ cohort. The ANZ female participants exhibit an almost L1-like realisation of voiceless [h], whereas the males produced the voiceless variant 53.75% of the time.
There is no worthy difference between the genders in the NZE, SAESA, SAENZ and ASA cohorts.

### 7.1.2 Statistical Analysis of the realisation /h/

A LMER (logistic) analysis was used to investigate the significance of the difference between the cohorts in realisation of /h/ using voiceless-ness as a factor. The analysis is recorded in the table below:

<table>
<thead>
<tr>
<th>Estimates of Fixed Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
</tr>
<tr>
<td>[Cohort=ANZ]</td>
</tr>
<tr>
<td>[Cohort=ASA]</td>
</tr>
<tr>
<td>[Cohort=SAENZ]</td>
</tr>
<tr>
<td>[Cohort=SAESA]</td>
</tr>
</tbody>
</table>

Table 15 LMER analysis of /h/

These proportions were used in a LMER analysis and proved insignificant for the cohorts of ANZ \( p = .072 \), SAENZ \( p = .502 \), SAESA \( p = 1.000 \). The ASA cohort was significantly different \( p < .0001 \) from those for the NZE cohort and this possibly suggests movement in the speech of the speakers who now reside in New Zealand away from that of the speakers who remain in South Africa. The increase in the proportion of voiceless [h] and the consequent decrease in the tokens of [ɦ] suggest a movement in the pronunciation of the ANZ speakers towards NZE realisation.
7.1.3 Realisation of /r/ (consonant)

The tokens of /r/ were examined to determine whether a difference in articulation had occurred in the Afrikaans-speaking cohort who had relocated to New Zealand. As described previously in the literature review, the normal realisation of /r/ in Afrikaans and Afrikaans-English is as an alveolar trill, [r], in all positions. This varies from the standard NZE and SAE production of the alveolar or post-alveolar approximant, [ɻ], in syllable-onset positions (henceforth considered onset /r/).

In total, there were 46 possible tokens of /r/ per speakers in the passage — a total of 1,702 tokens. Environments of /r/ from the reading are listed below:

<table>
<thead>
<tr>
<th>Environments of /r/</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ɪəә/</td>
</tr>
<tr>
<td>/ɪɪә/</td>
</tr>
<tr>
<td>/-ɪɪ-/</td>
</tr>
<tr>
<td>/-ɪə/</td>
</tr>
<tr>
<td>/ɪɪ/</td>
</tr>
</tbody>
</table>

Table 16 Environments of /r/

The token numbers for the SAE speakers who still live in South Africa perfectly illustrate what could be expected in a non-rhotic dialect of English. Each speaker recorded 46 tokens of the alveolar approximants in the onset position. There were no irregularities in this cohort; each individual participant produced [ɻ] 100% of the time.
The ASA cohort displayed varied productions of /r/ in the onset and postvocalic positions. The data shows that, generally, most individuals were able to produce near English-like reproductions of /r/ in its different positions. The range of realisation of [ɪ] varied from zero tokens produced to the full 46 tokens; proportions from zero percent to one hundred percent, respectively. Accordingly, the tokens of [r] also varied from zero to 46. Three participants, FASA5, FASA9 and MASA 1, had the highest proportions of [r] in their onset reproductions:

<table>
<thead>
<tr>
<th></th>
<th>[ɪ]</th>
<th>[r]</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASA1</td>
<td>89</td>
<td>11</td>
</tr>
<tr>
<td>FASA2</td>
<td>97</td>
<td>3</td>
</tr>
<tr>
<td>FASA3</td>
<td>97</td>
<td>3</td>
</tr>
<tr>
<td>FASA4</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>FASA5</td>
<td>49</td>
<td>51</td>
</tr>
<tr>
<td>FASA6</td>
<td>91</td>
<td>9</td>
</tr>
<tr>
<td>FASA9</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>MASA1</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>MASA2</td>
<td>95</td>
<td>5</td>
</tr>
<tr>
<td>MASA3</td>
<td>97</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>71.5</td>
<td>28.5</td>
</tr>
</tbody>
</table>

Table 17 Realisation of /r/ in ASA speakers
The NZE speakers, like the SAESA speakers, produced 100 percent of tokens of onset [i]. No occurrence of the trilled alveolar [r] occurred in the productions of the cohort.

<table>
<thead>
<tr>
<th></th>
<th>[i]</th>
<th>[r]</th>
</tr>
</thead>
<tbody>
<tr>
<td>FANZ1</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>FANZ2</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>FANZ3</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>MANZ1</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>MANZ2</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>MANZ4</td>
<td>1</td>
<td>99</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>83.5</strong></td>
<td><strong>16.5</strong></td>
</tr>
</tbody>
</table>

*Table 18 Realisation of /r/ in the pronunciation of ANZ speakers*

The data from the ANZ cohort shows a strong trend towards producing the SAE and NZE English standard [i] in all participants with the exception of MANZ4 who used the Afrikaans [r]. Of the ANZ /r/ data, 83.5 percent of the tokens produced were the equivalent of NZE [i], the remaining 16.5 percent was the Afrikaans trill [r].

The data from the SAENZ speakers shows that there was no variation in the production of /r/ by the participants. The speakers produced 100% of their tokens as [i].

163
The table above illustrates difference in proportion by gender for each of the cohorts. For the NZE, SAENZ and SAESA cohorts, there is no difference by gender in the realisation of /r/. All female and male participants produced [ɻ] for each token. There was a slight difference between males and females in the ASA cohort, with females producing slightly more [ɻ] than their male counterparts. The ANZ cohort showed a greater difference in the proportion of [ɻ] produced between the genders, with females realising /r/ exactly as the L1 English cohorts, while males remained close to the proportion of the ASA males.

### 7.1.4 Statistical Analysis of /r/ realisation

A LMER analysis was run to investigate the significance of the difference between the cohorts in realisation of [ɻ] using untrilled as a reference level. The analysis is recorded in the table below:

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASA</td>
<td>64</td>
<td>74.7</td>
</tr>
<tr>
<td>ANZ</td>
<td>67</td>
<td>100</td>
</tr>
<tr>
<td>NZE</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>SAENZ</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>SAESA</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 19 Proportion of /r/ by gender
### Estimates of Fixed Effects

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Cohort=ANZ]</td>
<td>-17.666667</td>
<td>15.687929</td>
<td>-1.126</td>
<td>0.311</td>
</tr>
<tr>
<td>[Cohort=ASA]</td>
<td>-29.700000</td>
<td>12.181087</td>
<td>-2.438</td>
<td>0.037</td>
</tr>
<tr>
<td>[Cohort=SAENZ]</td>
<td>0.375000</td>
<td>1.017774</td>
<td>0.368</td>
<td>0.719</td>
</tr>
<tr>
<td>[Cohort=SAESA]</td>
<td>-1.000000</td>
<td>1.064581</td>
<td>-0.939</td>
<td>0.370</td>
</tr>
</tbody>
</table>

Table 20 LMER analysis of /r/

The LMER analysis showed the data to be insignificant for the cohorts of SAENZ ($p = .719$), SAESA ($p = .370$), and ANZ ($p = .311$). The ASA cohort was significant ($p = .037$) providing evidence of a significant difference between the realisations for ASA and those for NZE. The comparative increase in the proportion of [ɪ] in the data from the ANZ speakers and the consequent decrease in the proportion of trilled [r] infer a movement of the pronunciation of the ANZ speakers towards NZE realisation.

#### 7.1.5 Realisation of /r/ (coda)

This section considers the analysis of coda /r/, or that /r/ which in certain environments is elided, e.g. *for*, *confirm*, *rare* in NZE and SAE. There were a total of 67 possible tokens of coda /r/ in the reading, totalling 2,479 tokens over all participants. The environments for /r/ as found in the reading are given below.
Environments of /r/ (coda)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>/ɜː(r)/</td>
<td>/uə(r)/</td>
<td></td>
</tr>
<tr>
<td>/ɔː(r)/</td>
<td>/ə(r)/</td>
<td></td>
</tr>
<tr>
<td>/eə(r)/</td>
<td>/aıə(r)/</td>
<td></td>
</tr>
<tr>
<td>/ɪə(r)/</td>
<td>/ɔɪə(r)/</td>
<td></td>
</tr>
<tr>
<td>/aː(r)/</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 21 Environments of coda /r/

The SAESA cohort elided 100% of all the possible /r/ tokens in the reading. There were no omissions due to mispronunciation.

<table>
<thead>
<tr>
<th></th>
<th>Elision</th>
<th>[r]</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSAESA1</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>FSAESA2</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>FSAESA3</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>FSAESA4</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>MSAESA1</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>MSAESA2</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 22 Realisation of coda /r/ in the pronunciation of SAENZ participants

The SAESA participants all elided coda /r/ with no discrepancies 100% of the time. This result was the same as with the participants in the other English-speaking cohorts, NZE and SAENZ. The NZE and SAENZ cohorts both fully elided /r/ in coda position. There were no mispronunciations which caused the omission of tokens. Interestingly, no rhoticity was recorded in the NZE cohort. This was something which might have been expected, especially from the younger participants and those who had grown up in Otago.
Table 23 Realisation of coda /r/ in the pronunciation of ASA participants

<table>
<thead>
<tr>
<th></th>
<th>Elision</th>
<th>[r]</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASA1</td>
<td>93</td>
<td>7</td>
</tr>
<tr>
<td>FASA2</td>
<td>98</td>
<td>2</td>
</tr>
<tr>
<td>FASA3</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>FASA4</td>
<td>98</td>
<td>2</td>
</tr>
<tr>
<td>FASA5</td>
<td>97</td>
<td>3</td>
</tr>
<tr>
<td>FASA6</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>FASA9</td>
<td>79</td>
<td>21</td>
</tr>
<tr>
<td>MASA1</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>MASA2</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>MASA3</td>
<td>97</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>95.5</td>
<td>4.5</td>
</tr>
</tbody>
</table>

The ASA cohort showed a small tendency to produce [r] in the coda position, although the realisation was similar to that of the L1 English speakers in the NZE, SAESA and SAENZ cohorts. FASA9 produced the most articulations of [r] in her reading, with 21% of the tokens being trilled (14 tokens).
Table 24 Realisation of coda /r/ in the pronunciation of ANZ participants

The data from the ANZ cohort shows a similar pattern to the ASA group, and close proximity to the L1 English cohorts. The majority of the tokens from the speakers were elided and very few were trilled /r/. MANZ4 was an exception as he produced many trilled tokens in any environment, although overall, he still tended to elide more.

Table 25 Realisation of coda /r/ by gender

The table above shows that there is little difference in the realisation of coda /r/ between the genders in ANZ and almost no difference in the genders in ASA. All L1 English speakers elided /r/ fully.
7.1.6 Statistical Analysis of /r/ (coda)

A LMER analysis was used to investigate the significance of the difference between the cohorts in realisation of /r/ using trilled as a factor. The analysis is recorded in the table below:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Cohort=ANZ]</td>
<td>-3.976190</td>
<td>4.569109</td>
<td>-0.870</td>
<td>0.415</td>
</tr>
<tr>
<td>[Cohort=ASA]</td>
<td>-1.433333</td>
<td>2.105284</td>
<td>-0.681</td>
<td>0.509</td>
</tr>
<tr>
<td>[Cohort=SAENZ]</td>
<td>-0.333333</td>
<td>1.023145</td>
<td>-0.326</td>
<td>0.752</td>
</tr>
<tr>
<td>[Cohort=SAESA]</td>
<td>1.166667</td>
<td>1.077549</td>
<td>1.083</td>
<td>0.307</td>
</tr>
</tbody>
</table>

Table 26 LMER analysis of coda /r/

The LMER analysis showed the data to be insignificant for all of the cohorts: SAENZ \((p = .752)\), SAESA \((p = .307)\), ANZ \((p = .415)\), ASA \((p = .509)\). There is no significant difference between any cohorts and the NZE speakers. Overall, participants in the ASA and ANZ cohorts elided /r/ coda to a level matching NZE speakers.

7.1.7 Aspiration of /p/

This part of the examination considered the production of aspirated /p/ by the participants in the different cohorts.

There were nine tokens of /p/ which could be aspirated from each individual’s reading. This created a total of 333 tokens over the five cohorts. Consonant clusters containing /p/ were not included because of the tendency of /p/ to accommodate to the surrounding consonants and lose aspiration in English. The two examples of
intervocalic /p/ were included as they were followed by stressed vowels. A trial with NZE speakers showed that they were generally aspirated in these positions and were, therefore, incorporated to investigate whether they demonstrated a possible change in the pronunciation of Afrikaans-speakers living in NZ. The environments in which [pʰ] is present are listed below:

<table>
<thead>
<tr>
<th>Environments of [pʰ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>/pʰɛ-/</td>
</tr>
<tr>
<td>/pʰu-/</td>
</tr>
<tr>
<td>/pʰaː-/</td>
</tr>
<tr>
<td>/ˌpʰiˑ/</td>
</tr>
</tbody>
</table>

Table 27 Environments of /p/

The following tables provide the proportion of tokens by realisation for the cohorts of participants followed by a description of the patterns seen in the data. Anomalies, including discrepancies in the analysis found within the data, are discussed when they occur. For an illustration of the difference between aspirated [pʰ] and unaspirated [p] as produced by two of the participants, please see figure 5.
<table>
<thead>
<tr>
<th></th>
<th>([p^h])</th>
<th>([p])</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASA1</td>
<td>11</td>
<td>89</td>
</tr>
<tr>
<td>FASA2</td>
<td>11</td>
<td>89</td>
</tr>
<tr>
<td>FASA3</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>FASA4</td>
<td>33</td>
<td>67</td>
</tr>
<tr>
<td>FASA5</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>FASA6</td>
<td>44</td>
<td>56</td>
</tr>
<tr>
<td>FASA9</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>MASA1</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>MASA2</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>MASA3</td>
<td>22</td>
<td>78</td>
</tr>
<tr>
<td>Total</td>
<td>12.1</td>
<td>87.9</td>
</tr>
</tbody>
</table>

Table 28 Aspiration of \(/p/ in ASA speakers

The ASA cohort displays what would be expected from speakers whose first language is Afrikaans. There were 79 of the total 90 tokens that were articulated as unaspirated \([p]\), which is standard in all environments in Afrikaans. All participants produced the unaspirated \([p]\) with the highest rate of articulation with all nine tokens. The lowest rate was five out of the total nine tokens.

FASA4 and FASA6 had the highest rate of aspirated \([p^h]\) articulation with three and four tokens respectively.
This cohort displays what is expected from an Anglophone (L1 English) cohort. There were 53 out of the possible 54 /p/ tokens produced by the cohort were aspirated, [pʰ]. Five of the participants aspirated every possible token which was expected with the /p/ environments chosen. One participant, FSAESA3, produced a single unaspirated [p].
The NZE-speaking participants used what would be expected of Anglophones, similar in articulation to the SAESA and SAENZ cohorts. All of the participants produced aspirated \([p^h]\) for all the tokens. One token for FNZE3 was excluded due to a mispronunciation of a word.

The group produced 53 aspirated \([p^h]\) tokens with no other exceptions apart from that mentioned above.

<table>
<thead>
<tr>
<th></th>
<th>([p^h])</th>
<th>([p])</th>
</tr>
</thead>
<tbody>
<tr>
<td>FANZ1</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>FANZ2</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>FANZ3</td>
<td>90</td>
<td>10</td>
</tr>
<tr>
<td>MANZ1</td>
<td>67</td>
<td>33</td>
</tr>
<tr>
<td>MANZ2</td>
<td>67</td>
<td>33</td>
</tr>
<tr>
<td>MANZ3</td>
<td>44</td>
<td>66</td>
</tr>
<tr>
<td>MANZ4</td>
<td>78</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>76.6</td>
<td>23.4</td>
</tr>
</tbody>
</table>

Table 31 Aspiration of /p/ in ANZ speakers

The ANZ cohort produced a mixed set of results with different articulations by gender. The articulations of the female participants were the closest to those of the NZE cohort with two participants aspirating all their productions of /p/. FANZ3 aspirated all her tokens with the exception of one unaspirated \([p]\). All the female participants had higher rates of aspiration than their male counterparts in the ANZ cohort. In total, the female participants aspirated 26 tokens out of a possible 27, which was a 96.2% realisation of \([p^h]\).
The male participants displayed a different trend with mixed productions of /p/ as aspirated \([p^h]\) and unaspirated \([p]\). The rates of production of aspirated \([p^h]\) ranged from a high of seven to a low of four out of a total nine per speaker. The other male participants produced between six and seven aspirated articulations of \([p^h]\). Again, although lower than their female counterparts, this is still higher than all the participants in the ASA-cohort.

<table>
<thead>
<tr>
<th></th>
<th>([p^h])</th>
<th>([p])</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSAENZ1</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>FSAENZ2</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>FSAENZ3</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>FSAENZ4</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>FSAENZ5</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>MSAENZ1</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>MSAENZ2</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>MSAENZ3</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 32 Aspiration of /p/ in SAE speakers in NZ

This cohort, like the other English-speaking cohorts, produced pronunciation typical of Anglophone (L1 English) speakers. The participants produced 71 aspirated bilabial plosives out of a possible total of 71, a 100% realisation of \([p^h]\). The only exception was one token of \([b]\) produced by FSAENZ2 on the word *superb*. This was considered a mispronunciation of *suburb* and was omitted from the analysis.
### Table 33 Aspiration of /p/ by gender

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASA</td>
<td>7.3</td>
<td>14.1</td>
</tr>
<tr>
<td>ANZ</td>
<td>64</td>
<td>96.6</td>
</tr>
<tr>
<td>NZE</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>SAENZ</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>SAESA</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

The data in the table above shows the proportion of aspirated /p/ by gender for each cohort. There is no difference in the realisations between the genders in the NZE, SAENZ and SAESA cohorts. There is a slight difference in the ASA cohort, with females producing double the aspirated variations; however, this is a low number for both genders. The ANZ shows a greater difference between the genders with the females producing almost the same as the English speakers in other cohorts, while the males, although aspirating /p/ more than the ASA cohort, produce 30% less aspirated variants.

#### 7.1.8 Statistical Analysis of /p/ aspiration

A LMER analysis was used to investigate the significance of the difference between the cohorts in realisation of /p/ using aspiration as a factor. The analysis is recorded in the table below:


<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Cohort=ANZ]</td>
<td>-17.642857</td>
<td>7.839699</td>
<td>-2.250</td>
<td>0.062</td>
</tr>
<tr>
<td>[Cohort=ASA]</td>
<td>-83.400000</td>
<td>5.259278</td>
<td>-15.858</td>
<td>0.000</td>
</tr>
<tr>
<td>[Cohort=SAENZ]</td>
<td>-0.250000</td>
<td>1.719115</td>
<td>-0.145</td>
<td>0.888</td>
</tr>
<tr>
<td>[Cohort=SAESA]</td>
<td>-0.166667</td>
<td>1.777951</td>
<td>-0.094</td>
<td>0.927</td>
</tr>
</tbody>
</table>

Table 34 LMER analysis of /p/ aspiration

These proportions were used in a LMER analysis and shown to be insignificant for the cohorts of NZE ($p = 1.000$), SAENZ ($p = .927$), SAESA ($p = 1.000$), and nearing significance for ANZ ($p = .064$). The ASA cohort was significant ($p < .0001$) providing evidence of a significant difference between the realisations for ASA and those for NZE. The increase in the proportion of aspirated [pʰ] in the data from the ANZ speakers and the consequent decrease in the proportion of unaspirated [p] suggest a movement of the pronunciation of the ANZ speakers towards NZE realisation.

### 7.1.9 Aspiration of /t/

This section investigates the articulation of the /t/ phoneme in the participants’ readings. There were a total of 12 tokens of /t/ within each reading. Over the five cohorts this created a total of 444 tokens of /t/. Most of these included in the analysis were either word initial or syllable initial. Consonant clusters containing /t/ were not included as /t/ is normally unaspirated in such environments. The environments which were present in the reading are tabled below:
Table 35 Environments of /tʰ/

<table>
<thead>
<tr>
<th>Environment</th>
<th>/tʰu:/</th>
<th>/tʰu/</th>
<th>/tʰɛ:/</th>
<th>/tʰɛ/</th>
<th>/tʰɑːʊ/</th>
<th>/tʰɛ/</th>
</tr>
</thead>
</table>

Table 35 Environments of /t/  

In this analysis there were a total of 12 possible tokens per speaker, all of which had the potential to be aspirated or unaspirated. For a comparison of spectrograms for aspirated [tʰ] and unaspirated [t], please refer to figure 13 in appendix 4.

The tables below show the proportion of /t/ realisations per speaker within their cohort:

Table 36 Realisation of /t/ in the pronunciation of ASA speakers

The ASA cohort displayed a mixed articulation between aspirated [tʰ] and unaspirated [t]. There were a total of 25 tokens of [tʰ] produced by this group out of a
possible 120. This equals 20.6% of the total tokens produced by the speakers that were aspirated. The participant who aspirated the most was MASA3 with 7 aspirated \([t^h]\) tokens and the participants who did not aspirate at all were FASA9, MASA1 and MASA2.

There were a total of 95 tokens of unaspirated \([t]\) produced by the participants of the group. This was equal to 79.4% of the total productions of \([t]\). This proportion was expected with cohort because this is the normal articulation for L1 Afrikaans-speakers. Almost all speakers produced more unaspirated than aspirated sounds.

<table>
<thead>
<tr>
<th></th>
<th>([t^h])</th>
<th>([t])</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSAESA1</td>
<td>92</td>
<td>8</td>
</tr>
<tr>
<td>FSAESA2</td>
<td>85</td>
<td>15</td>
</tr>
<tr>
<td>FSAESA3</td>
<td>88</td>
<td>12</td>
</tr>
<tr>
<td>FSAESA4</td>
<td>92</td>
<td>8</td>
</tr>
<tr>
<td>MSAESA1</td>
<td>96</td>
<td>4</td>
</tr>
<tr>
<td>MSAESA2</td>
<td>96</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>91.5</td>
<td>8.5</td>
</tr>
</tbody>
</table>

Table 37 Realisation of \(/t/ in SAESA speakers

The majority of the tokens produced by the FSAENZ participants were aspirated \([t^h]\). There were 66 tokens of \([t^h]\) from a possible total of 72 articulations of \(/t/\), equalling 91.5% of the tokens produced by this group.

There were 6 tokens of unaspirated \([t]\) produced by the participants in the SAESA group. This equalled 8.5% of the total \(/t/\) tokens produced. Each speaker produced at least one unaspirated consonant. Speakers in this group generally did not
aspirate the initial consonant of the word to, creating [tə] rather than the stressed equivalent, [tʰuː].

<table>
<thead>
<tr>
<th></th>
<th>[tʰ]</th>
<th>[t]</th>
</tr>
</thead>
<tbody>
<tr>
<td>FNZE1</td>
<td>92</td>
<td>8</td>
</tr>
<tr>
<td>FNZE2</td>
<td>92</td>
<td>8</td>
</tr>
<tr>
<td>FNZE3</td>
<td>92</td>
<td>8</td>
</tr>
<tr>
<td>FNZE4</td>
<td>92</td>
<td>8</td>
</tr>
<tr>
<td>MNZE1</td>
<td>92</td>
<td>8</td>
</tr>
<tr>
<td>MNZE2</td>
<td>92</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>8</td>
</tr>
</tbody>
</table>

Table 38 Realisation of /t/ in NZE speakers

The majority of the tokens produced by the cohort were aspirated [tʰ] with a proportion of 92%.

There were 6 tokens, out of a total of 72, that were unaspirated [t] produced by the participants in the NZE cohort. This was 8% of the total tokens produced. Again, the only sound which the speakers had a tendency not to aspirate was the word to. Each speaker in the cohort produced one unaspirated token of [t].
Table 39 Realisation of /t/ in ANZ speakers

<table>
<thead>
<tr>
<th></th>
<th>[tʰ]</th>
<th>[t]</th>
</tr>
</thead>
<tbody>
<tr>
<td>FANZ1</td>
<td>71</td>
<td>29</td>
</tr>
<tr>
<td>FANZ2</td>
<td>85</td>
<td>15</td>
</tr>
<tr>
<td>FANZ3</td>
<td>54</td>
<td>46</td>
</tr>
<tr>
<td>MANZ1</td>
<td>79</td>
<td>21</td>
</tr>
<tr>
<td>MANZ2</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>MANZ3</td>
<td>58</td>
<td>42</td>
</tr>
<tr>
<td>MANZ4</td>
<td>54</td>
<td>46</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>32</td>
</tr>
</tbody>
</table>

The ANZ cohort showed less difference in production between the aspirated allophone, [tʰ], and unaspirated allophone, [t], than the ASA cohort did. In contrast to productions of the ASA cohort, the aspirated allophone was the most produced among the ANZ participants.

The speakers produced a total of 57 tokens of [tʰ] out of a possible 84. This gave a proportion of 68% for [tʰ]. This rate of production showed an increase of 42.1% over the ASA group at 21.2%, which could suggest that Afrikaans speakers change their pronunciation in New Zealand.

There were 27 tokens of unaspirated [t] produced by the speakers in this cohort, 32% of the total tokens. FANZ3 and MANZ4 exhibited the highest token count, followed by MANZ3, and FANZ2 displayed the lowest, closely followed by MANZ1. FANZ3, MANZ3 and MANZ4 all produced almost double the number of tokens that their counterparts produced. These participants also tended to have the least affrication.
in the group. In contrast to the NZE speakers who predominantly realised [t] in the word *to*, there seems to be no pattern for the ANZ speakers pertaining to which words aspirate or not. The ANZ speakers used [t] in the words *to, little, territory, tire, time, sentimental, to,* and *onto*. There were two words, *tower* and *futile*, in which it was aspirated by everyone except FANZ1 (*tower*) and MANZ3 (*futile*). There was only one word in which /t/ was aspirated by all participants: *lunatic*.

<table>
<thead>
<tr>
<th></th>
<th>([t^h])</th>
<th>([t])</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSAENZ1</td>
<td>94</td>
<td>6</td>
</tr>
<tr>
<td>FSAENZ2</td>
<td>98</td>
<td>2</td>
</tr>
<tr>
<td>FSAENZ3</td>
<td>95</td>
<td>5</td>
</tr>
<tr>
<td>FSAENZ4</td>
<td>93</td>
<td>7</td>
</tr>
<tr>
<td>FSAENZ5</td>
<td>95</td>
<td>5</td>
</tr>
<tr>
<td>MSAENZ1</td>
<td>92</td>
<td>8</td>
</tr>
<tr>
<td>MSAENZ2</td>
<td>92</td>
<td>8</td>
</tr>
<tr>
<td>MSAENZ3</td>
<td>93</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>93.3</strong></td>
<td><strong>6.7</strong></td>
</tr>
</tbody>
</table>

*Table 40 Realisation of /t/ in SAENZ speakers*

The articulation of /t/ for the speakers in the SAENZ cohort is similar to those in the NZE-speaking cohort and SAESA cohort.

The participants in the SAENZ group aspirated a total of 88 tokens from a possible 96, equalling 93.3% of the total tokens produced. Most participants in this group aspirated similarly.
There were 8 tokens of unaspirated [t] produced by the participants, equalling 6.7% of the tokens produced. This was a similar rate of production when compared to the other English-speaking cohorts. The majority of tokens which were unaspirated were in the word to, with most participants not aspirating to at least once during their reading. Three speakers did not aspirate the second [t] in sentimental but all participants aspirated the first token.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASA</td>
<td>7.3</td>
<td>14.1</td>
</tr>
<tr>
<td>ANZ</td>
<td>64</td>
<td>96.6</td>
</tr>
<tr>
<td>NZE</td>
<td>95.5</td>
<td>94.8</td>
</tr>
<tr>
<td>SAENZ</td>
<td>90.3</td>
<td>95</td>
</tr>
<tr>
<td>SAESA</td>
<td>96</td>
<td>89.3</td>
</tr>
</tbody>
</table>

As it can be seen in the table above, there were no obvious differences between the genders in the SAESA, SAENZ, NZE and ASA cohorts. However, in the ANZ cohort, there was a difference in the proportion of production of aspirated [tʰ] by over 30%. Females produced more aspirated tokens (n = 81) than their male counterparts (n = 53).

7.1.10 Statistical Analysis of /t/ aspiration

A LMER analysis was used to investigate the significance of the difference between the cohorts in realisation of /t/ using aspiration as a factor. The analysis is recorded in the table below:
Estimates of Fixed Effects

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Cohort=ANZ]</td>
<td>-27.00000</td>
<td>4.822566</td>
<td>-5.599</td>
<td>0.001</td>
</tr>
<tr>
<td>[Cohort=ASA]</td>
<td>-74.40000</td>
<td>7.474698</td>
<td>-9.954</td>
<td>0.000</td>
</tr>
<tr>
<td>[Cohort=SAENZ]</td>
<td>-1.75000</td>
<td>1.375162</td>
<td>-1.273</td>
<td>0.231</td>
</tr>
<tr>
<td>[Cohort=SAESA]</td>
<td>-3.416667</td>
<td>1.863763</td>
<td>-1.833</td>
<td>0.114</td>
</tr>
</tbody>
</table>

Table 41 LMER analysis of /t/ aspiration

The LMER analysis showed the data to be insignificant for the cohorts of SAENZ ($p = .231$) and SAESA ($p = .114$). The ASA cohort was significant ($p < .0001$), as was the ANZ cohort ($p .001$) providing evidence that a significant difference between the realisations for ASA, and those for ANZ, exists when compared to NZE realisation.

7.1.11 Aspiration of /k/

This section of the analysis focuses on the participants’ aspiration of the /k/ phoneme. In Afrikaans English, /k/ is rarely aspirated. While some AfrE speakers can, and do, aspirate /k/, many do not and this makes it an appropriate phoneme to illustrate whether an obvious difference has developed in the English of Afrikaans speakers who have moved to New Zealand.

There were a total of 14 tokens of /k/ per speaker for the reading with an overall total of 518 tokens analysed. The environments that were analysed consisted solely of word-initial and stressed syllable-initial sounds as these were uniformly aspirated among the NZE speaking cohort. Consonant clusters which included /k/, either word initially or syllable-finally, were not included as were those tokens which occurred intervocalically, due to the tendency to drop aspiration in most English dialects.
The following tables give the proportion of the two allophones of /k/ under analysis: [k] and [kʰ]. Both variants are discussed for each cohort and any other influences, such as age, sex or location, will be mentioned where appropriate. For an illustrated comparison between aspirated [kʰ] and unaspirated [k], please refer to figure 14 in appendix 4.
There were 122 tokens of unaspirated [k] and only 18 instances of aspiration. There appears to be no specific relationship between pronunciation and gender or location.

There were 18 tokens of aspirated [kʰ] produced by the speakers in the ASA group. This was a proportion of 12.9% of the total tokens produced. There were six participants who used aspiration for this sound at least once during their reading and four who did not aspirate any tokens of /k/. Of those who aspirated, FASA2 exhibited the most aspiration with five tokens. FASA4 and MASA3 each had four tokens of aspiration in their reading. There were four participants who did not aspirate any tokens during their readings; these were FASA5, FASA9, MASA1 and MASA2. Those
participants who were older (FASA5, FASA9 and MASA1) produced the least aspirated [kʰ]. FASA1 produced only one unaspirated allophone of /k/.

The participants had a limited number of words which contained [kʰ]; of these, *kit* and *Comma* were most commonly aspirated. Other words, such as *cost* and *cure*, were also aspirated but not to the extent of *kit* and *Comma*.

The unaspirated variant was the most commonly produced allophone of /k/ in this cohort; with 122 tokens. This was equal to a proportion of 87.1% of the total tokens produced. FASA5, FASA9, MASA1 and MASA2 produced the most unaspirated [k] tokens in their readings with all possible realisations of /k/ being unaspirated. All participants had high rates of [k] which is common for L1 Afrikaans speakers.

There were 84 tokens of aspirated [kʰ] and no tokens of unaspirated [k] produced by the SAESA cohort. This was a 100% proportion of [kʰ] by the speakers of the group.

The analysis of the NZE cohort showed that there were 84 tokens of aspirated [kʰ] and no tokens of unaspirated [k]. This was a 100% proportion of [kʰ] by the speakers of the group.

The examination of the pronunciation of /k/ for the SAENZ cohort showed that there were 112 tokens of aspirated [kʰ] and no tokens of unaspirated [k]. This was a 100% proportion of [kʰ] by the speakers of the cohort. This is the same rate of production as the NZE and SAESA cohorts.
<table>
<thead>
<tr>
<th></th>
<th>([k^h])</th>
<th>([k])</th>
</tr>
</thead>
<tbody>
<tr>
<td>FANZ1</td>
<td>86</td>
<td>14</td>
</tr>
<tr>
<td>FANZ2</td>
<td>86</td>
<td>14</td>
</tr>
<tr>
<td>FANZ3</td>
<td>79</td>
<td>21</td>
</tr>
<tr>
<td>MANZ1</td>
<td>92</td>
<td>8</td>
</tr>
<tr>
<td>MANZ2</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>MANZ3</td>
<td>42</td>
<td>58</td>
</tr>
<tr>
<td>MANZ4</td>
<td>14</td>
<td>86</td>
</tr>
<tr>
<td>Total</td>
<td>71.3</td>
<td>28.7</td>
</tr>
</tbody>
</table>

Table 44: Aspiration of /k/ in ANZ speakers

The participants in the ANZ cohort show a distinct difference between production of aspirated \([k^h]\) and unaspirated \([k]\), producing more instances of aspirated \([k^h]\). There were a total of 98 tokens of /k/ produced by this cohort in their readings. Two participants, MANZ3 and MANZ4, ran counter to the rest of the group as their tokens of unaspirated \([k]\) were much higher.

There were 70 tokens of \([k^h]\) that were produced by participants of this cohort. This was equal to a proportion of 71.3% of the total tokens. This is much higher than the ASA cohort (12.9%). MANZ2 was the participant with the highest count of \([k^h]\) at 14 tokens. The rest of the cohort has values ranging from 11 tokens to 13 tokens, with the exception of the participants mentioned above. MANZ3 and MANZ4 had the lowest token values in the cohort, at six and two tokens, respectively.
<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASA</td>
<td>12</td>
<td>16.1</td>
</tr>
<tr>
<td>ANZ</td>
<td>62</td>
<td>83.7</td>
</tr>
<tr>
<td>NZE</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>SAENZ</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>SAESA</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

The table above illustrates the proportion of aspirated [kh] produced by the genders within each cohort. There is little difference in proportion for the ASA, NZE, SAENZ and SAESA cohorts. The female participants in the ANZ cohort produced more aspirated tokens than their male counterparts with 83.7% compared with 62%.

### 7.1.12 Statistical Analysis of /k/ aspiration

A LMER analysis was used to investigate the significance of the difference between the cohorts in realisation of /k/ using aspiration as a factor. The analysis is recorded in the table below:

<table>
<thead>
<tr>
<th>Estimates of Fixed Effects</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Cohort=ANZ]</td>
<td>-23.380952</td>
<td>11.904076</td>
<td>-1.964</td>
<td>0.096</td>
</tr>
<tr>
<td>[Cohort=ASA]</td>
<td>-79.766667</td>
<td>4.863583</td>
<td>-16.401</td>
<td>0.000</td>
</tr>
<tr>
<td>[Cohort=SAENZ]</td>
<td>1.583333</td>
<td>1.613866</td>
<td>0.981</td>
<td>0.349</td>
</tr>
<tr>
<td>[Cohort=SAESA]</td>
<td>1.333333</td>
<td>1.542004</td>
<td>0.865</td>
<td>0.410</td>
</tr>
</tbody>
</table>

Table 45 LMER analysis of /k/ aspiration
The LMER analysis showed the data to be insignificant for the cohorts of SAENZ \((p = .349)\), SAESA \((p = .410)\), and ANZ \((p = .096)\) compared to the NZE realisation. The ASA cohort was significant \((p < .0001)\) providing evidence of a significant difference between the realisations for ASA and those for NZE. The increase in the proportion of aspirated \([k^h]\) in the data from the ANZ speakers and the consequent decrease in the proportion of unaspirated \([k]\) infer a movement of the pronunciation of the ANZ speakers towards NZE realisation.

### 7.1.13 /p/, /t/ & /k/ Realisation

The analysis found that NZE speakers did not vary in their aspiration of /p/, /t/, and /k/. These tokens were aspirated one hundred percent of the time, with the exception of /t/ where there was one token per participant which was unaspirated. Aspirated stressed stops such as /p/, /t/ and /k/ are part of the phonological system of NZE (Bauer et al., 2007; Gordon et al., 2004; Margaret, Catherine, Ray, Jeanette, & Peter, 2009) and they are not typical in Afrikaans (Donaldson, 1993; Wissing & Coetzee, 1996) and this lack of aspiration is often transferred to their Afrikaans English (Watermeyer, 1996).

The analysis found that the ASA cohort did not aspirate the majority of the time, 87.9% for [p], 79.4% for [t] and 86% for [k], when they produced these consonants in the reading. The LMER analysis showed a significant difference between the ASA realisations of /p/, /t/ and /k/ compared to the NZE, SAENZ and SAESA realisations. This implies that aspiration has not become normal for the ASA participants who have remained in South Africa. This result would match that of Watermeyer (1996) who found that less than half of her participants produced aspirated consonants.
The same analysis found that the ANZ cohort did aspirate the majority of the time for [pʰ] (76.6%), [tʰ] (68%) and [kʰ] (71.3%). However, only /p/ and /k/ were similar enough to the NZE realisations to result in an insignificant difference after the LMER analysis was completed. Even though the proportions provided prior to LMER analysis can indicate that there has been some change in the aspiration of these consonants in the speech of the ANZ cohorts, their tendency to aspirate /t/ is not strong enough to be similar to NZE after the LMER analysis is completed. It is interesting that /p/ and /k/ would develop aspiration before that of /t/. Perhaps the more numerous allophones of /t/ in NZE, namely [tʰ], [t], [ʔ], [ɾ] and [ʧ], make it more difficult for the ANZ cohort to consolidate the aspiration on word initial and stressed /t/, when compared to the two allophones of both /p/ and /k/.

7.2 Quantitative Data – Vowels

The next section investigates the pronunciation of the vowels in the study. The vowels are analysed using z-scores resulting from the normalisation of formant values measured from the KIT tokens of each speaker. The values provided here are the average formant values for each speaker and the averages for each cohort. Each vowel is analysed in two subsequent parts — one for the first formant, and one for the second formant. As described in chapter six, ASA, ANZ, SAENZ and SAESA formant values are compared with the normalised formant values of the NZE speakers.

As the Lobanov method of normalisation produces z-scores for vowels, any graphs comparing cohorts are left in z-scores, as in in Clopper, Pisoni and de Jong (2005). Genders are compared as well for each vowel. The number of participants, especially males, was a limitation in this study and statistical analysis of gender as a factor could not be run. Refer to chapter ten and the section on limitations for further clarification.
7.2.1 Realisation of KIT

For the KIT vowel, there were a total of 17 tokens per speaker which totalled 391 tokens over the three speaker groups. The environments in which KIT type one occurred are shown in the table below. The tokens of KIT investigated were both syllable initial and syllable medial; e.g. *it*, the second “i” in *district*, *give*.

The KIN-PIN split, as discussed in §4.1.3, in SAE and AfrE causes two realisations of KIT; a closer realisation, [ɪ - i], and a more central realisation, [ɪ̈ - ə] (Lass, 1990). As discussed in §6.6, this was accommodated for by including only those tokens in environments which were articulated in the closer variant in SAE and AfrE. NZE has a single, centralised articulation. A more centralised ANZ realisation of what would normally be a high KIT vowel in SAE, could suggest implies a movement in their pronunciation towards the realisation of NZE.

![Normalised Short Front Vowels](image_url)

*Figure 6 Normalised Short Front Vowels using Z-score*
The figure above shows the normalised values of the short front vowels for all the cohorts. Other vowels in this figure are discussed in the following two sections too.

<table>
<thead>
<tr>
<th>Environments for KIT in the reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ɪdʒ</td>
</tr>
<tr>
<td>hit</td>
</tr>
<tr>
<td>-strikt</td>
</tr>
<tr>
<td>-tic</td>
</tr>
<tr>
<td>giv</td>
</tr>
</tbody>
</table>

Table 46 Environments for KIT

Table 46 gives the environments of KIT from the reading. Most participants produced measurable KIT tokens in all environments.

<table>
<thead>
<tr>
<th></th>
<th>F1</th>
<th>F2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASA</td>
<td>-0.7706</td>
<td>0.463</td>
</tr>
<tr>
<td>ANZ</td>
<td>-0.50714</td>
<td>0.202429</td>
</tr>
<tr>
<td>NZE</td>
<td>0.095333</td>
<td>-0.095</td>
</tr>
<tr>
<td>SAENZ</td>
<td>-0.44425</td>
<td>0.149375</td>
</tr>
<tr>
<td>SAESA</td>
<td>-0.47617</td>
<td>0.389333</td>
</tr>
</tbody>
</table>

Table 47 Normalised values of KIT by cohort

The normalised data in the table above shows the typical centralised articulation of KIT by the NZE cohort. Refer to figure 6 for graphic illustration. It appears that the ASA articulation of KIT in this study is closer and more fronted than is the case with the
participants in the other cohorts. The SAESA participants realised KIT as more fronted than their SAENZ counterparts did, while maintaining a similar F1 value.

The ANZ cohort appears to show a different pronunciation from that of the ASA participants, when the normalised data is considered. The articulation provided for KIT by the ANZ cohort in this study is more centralised and open than that of the ASA, more centralised than that of the SAESA participants, and similar to that of the SAENZ participants. While the KIT articulation of the ANZ speakers is still different from that of the NZE speakers, it can be seen that there may have been some sort of movement by participants in the ANZ cohort towards an NZE realisation.

Figure 7 Female and male KIT values by cohort
When the normalised data of the genders is compared, it can be seen that the KIT vowel is generally realised in the same vowel space by males and females in the participant cohorts. The NZE speakers, both male and female, produced the most centralised KIT vowel; however, the MANZ participants appear to the matching the MNZE speakers with a realisation of KIT farther back in the mouth than is the case with the other cohorts. The ASA participants had the closest realisation of KIT and the MASA participants had the most fronted realisation. The SAE cohorts (NZ and SA) seem to have similar realisations, with the KIT vowels of the female participants of both cohorts and the MSAENZ similar in realisation. The MSAESA realisation of KIT is more fronted than in any of the other SAE cohorts, but has a similar height in the mouth.

There is a difference in the realisations of KIT between the ASA genders and the ANZ genders. The KIT vowel of both genders of the ANZ cohort is more centralised than that of their South Africa-residing counterparts; showing a more NZE-like realisation of KIT. The ANZ cohort is the only group in which the male participants produce KIT farther back in the mouth than the females. Table 48 shows the normalised data for the formant values by gender for each cohort, as displayed in figure 7.

<table>
<thead>
<tr>
<th>KIT</th>
<th>Cohort</th>
<th>Females F1</th>
<th>Females F2</th>
<th>Males F1</th>
<th>Males F2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANZ</td>
<td>-0.483</td>
<td>0.261</td>
<td>-0.599</td>
<td>0.069</td>
<td></td>
</tr>
<tr>
<td>ASA</td>
<td>-0.731</td>
<td>0.404</td>
<td>-0.807</td>
<td>0.646</td>
<td></td>
</tr>
<tr>
<td>NZE</td>
<td>0.082</td>
<td>-0.1555</td>
<td>0.133</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>SAENZ</td>
<td>-0.364</td>
<td>0.229</td>
<td>-0.466</td>
<td>0.329</td>
<td></td>
</tr>
<tr>
<td>SAEASA</td>
<td>-0.4945</td>
<td>0.2645</td>
<td>-0.4325</td>
<td>0.5775</td>
<td></td>
</tr>
</tbody>
</table>

Table 48 Average KIT formant values by cohort and gender
7.2.2 Statistical Analysis of KIT

A linear mixed effects regression (LMER) analysis was used to investigate the significance of two different sets of data. The first included the normalised F1 z-scores of all the participants, with cohort as a factor, to see if the difference between the formant values is significant with the NZE data. The second analysis did the same with the normalised F2 z-scores for the formant values.

### Estimates of Fixed Effects

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Cohort=ANZ]</td>
<td>-0.602476</td>
<td>0.070969</td>
<td>-8.489</td>
<td>0.000</td>
</tr>
<tr>
<td>[Cohort=ASA]</td>
<td>-0.865933</td>
<td>0.052784</td>
<td>-16.405</td>
<td>0.000</td>
</tr>
<tr>
<td>[Cohort=SAENZ]</td>
<td>-0.539583</td>
<td>0.097457</td>
<td>-5.537</td>
<td>0.000</td>
</tr>
<tr>
<td>[Cohort=SAESA]</td>
<td>-0.571500</td>
<td>0.059556</td>
<td>-9.596</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*Table 49 LMER analysis for KIT F1*

The F1 analysis made comparing the cohorts against NZE found significance in the values of ASA ($p < .0001$), SAENZ ($p < .0001$), and SAESA ($p < .0001$). The same analysis against the ANZ was also significant ($p < .0001$). The difference between the ASA cohort, and between the ANZ cohort, and the NZE participants is significant.

### Estimates of Fixed Effects

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Cohort=ANZ]</td>
<td>0.297429</td>
<td>0.140842</td>
<td>2.112</td>
<td>0.059</td>
</tr>
<tr>
<td>[Cohort=ASA]</td>
<td>0.558000</td>
<td>0.108977</td>
<td>5.120</td>
<td>0.000</td>
</tr>
<tr>
<td>[Cohort=SAENZ]</td>
<td>0.244375</td>
<td>0.116217</td>
<td>2.103</td>
<td>0.058</td>
</tr>
<tr>
<td>[Cohort=SAESA]</td>
<td>0.484333</td>
<td>0.143160</td>
<td>3.383</td>
<td>0.008</td>
</tr>
</tbody>
</table>

*Table 50 LMER analysis for KIT F2*

The F2 analysis found significance in the values of the ASA cohort ($p < .0001$) and the SAESA cohort ($p = .008$). The analysis of the articulations was found to be nearing
significance for SAENZ ($p = .058$) and ANZ (0.058). This result indicates that KIT realisation of the ANZ and SAENZ cohorts might be more similar in pronunciation to the NZE cohort than to the ASA and SAESA.

Overall, the data indicates a possible movement of KIT towards a more open F1 in the speech of the ANZ participants; however, the difference between the KIT articulations was still significant compared to the NZE articulations after the LMER analysis was run. The values of the F2 indicate that some amount of tongue backing has occurred in the articulations of KIT for the ANZ cohort. The LMER analysis found that the difference between the ANZ articulations and the NZE articulations was weakly insignificant, similar to the pronunciation of the SAENZ cohort. The pronunciation of the ANZ participants appears to have moved farther back in the mouth for their realisation of KIT, suggesting an approximation towards NZE – although the NZE articulation of KIT is still quite different.
7.2.3 Realisation of DRESS

There were a total of 19 tokens of DRESS per reading in the text which came to 703 tokens of DRESS over the cohorts analysed. The environments in which DRESS appeared were both word initial and syllable medial; e.g. *veterinary, stressed, efforts*.

The environments in which DRESS appeared in the reading were:

<table>
<thead>
<tr>
<th>Environments of DRESS in the reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>/pe-/</td>
</tr>
<tr>
<td>/te-/</td>
</tr>
<tr>
<td>/tfɛ-/</td>
</tr>
<tr>
<td>/drɛ-/</td>
</tr>
<tr>
<td>/we-/</td>
</tr>
<tr>
<td>/ikspe-/</td>
</tr>
<tr>
<td>/me-/</td>
</tr>
<tr>
<td>/dʒɛ-/</td>
</tr>
<tr>
<td>/ve-/</td>
</tr>
<tr>
<td>/stre-/</td>
</tr>
<tr>
<td>/ðɛ-/</td>
</tr>
<tr>
<td>/he-/</td>
</tr>
<tr>
<td>/le-/</td>
</tr>
<tr>
<td>/se-/</td>
</tr>
<tr>
<td>/ke-/</td>
</tr>
<tr>
<td>/ɛf-/</td>
</tr>
</tbody>
</table>

Table 51 Environments of DRESS

The following analysis will use the z-scores resultant from the normalisation procedures. Individual speaker values will be considered and explained where appropriate. All participants produced measurable DRESS tokens in all environments.
<table>
<thead>
<tr>
<th></th>
<th>F1</th>
<th>F2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASA</td>
<td>-0.202</td>
<td>0.7354</td>
</tr>
<tr>
<td>ANZ</td>
<td>-0.40786</td>
<td>0.946857</td>
</tr>
<tr>
<td>NZE</td>
<td>-0.55633</td>
<td>0.866</td>
</tr>
<tr>
<td>SAENZ</td>
<td>-0.17325</td>
<td>0.742375</td>
</tr>
<tr>
<td>SAESA</td>
<td>-0.0075</td>
<td>0.724167</td>
</tr>
</tbody>
</table>

Table 52 Normalised Z-scores for DRESS by cohort

The normalised formant data in the table shows the typical close articulation of DRESS from the NZE cohort (Langstrof, 2011; Maclagan & Hay, 2007; McKenzie, 2005). Refer to figure 6 for graphic illustration. From figure 6, it can be seen that the articulation of the ANZ cohort is closer and more fronted than that of the ASA, SAENZ and SAESA cohorts.

The NZE and ANZ cohorts both have a closer and more fronted realisation of DRESS than the pronunciation of the other cohorts. The SAESA and SAENZ cohorts have similar pronunciation, with the articulation of the SAENZ cohort slightly higher in the mouth than the SAESA. The ASA and SAENZ pronunciation of DRESS appear to be similar from the normalised formant frequencies. South African English can have raised variants of DRESS (Bowerman, 2004; Branford, 1994; Lass, 1990); however, these appear to not be as raised as the vowel in the speech of the NZE cohort. Figure 6 shows that the pronunciation of DRESS amongst the ANZ cohort has apparently raised towards that of the NZE, and in this case, appears to have become more fronted than that of the NZE cohort.
Figure 8 displays the normalised gender data for the DRESS vowel. It is immediately obvious that both genders of NZE have similar front and raised realisations of DRESS, typical of the dialect. MNZE exhibit the closest realisation while both MNZE and FNZE exhibit similarly fronted F2 values. Overall, the male and female NZE values are similar for DRESS.

The most open realisation of DRESS is the MSAESA cohort, more open and back than any of their counterparts. The values of the MASA and MSAENZ participants are similarly placed in the vowel space, both more open than the NZE and ANZ cohorts. The FSAESA participants present the most open realisation of DRESS of the female participants but their F2 value is similar to other female cohorts.
The ANZ cohort differs from their ASA counterparts in the realisation of DRESS. The vowel realisations of both genders are raised and fronted compared with that of their ASA counterparts. The FANZ participants exhibit the most fronted realisation of a similar height in the vowel space to the NZE cohorts. The realisations of the MANZ participants are similarly fronted with the NZE participants but have a more open realisation; however, it is still closer and more fronted than the MASA participants. The ANZ participants, FANZ in particularly, appear to be approximating towards NZE-like realisations. Table 53 shows the normalised frequency data for the dormant values by gender for each cohort, as displayed in figure 8.

<table>
<thead>
<tr>
<th>DRESS</th>
<th>Cohort</th>
<th>Females F1</th>
<th>Females F2</th>
<th>Males F1</th>
<th>Males F2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANZ</td>
<td>-0.494</td>
<td>1.025</td>
<td>-0.283</td>
<td>0.8105</td>
<td></td>
</tr>
<tr>
<td>ASA</td>
<td>-0.274</td>
<td>0.77</td>
<td>-0.07</td>
<td>0.719</td>
<td></td>
</tr>
<tr>
<td>NZE</td>
<td>-0.471</td>
<td>0.84</td>
<td>-0.599</td>
<td>0.856</td>
<td></td>
</tr>
<tr>
<td>SAENZ</td>
<td>-0.236</td>
<td>0.765</td>
<td>-0.044</td>
<td>0.739</td>
<td></td>
</tr>
<tr>
<td>SAESA</td>
<td>-0.1045</td>
<td>0.79</td>
<td>0.0855</td>
<td>0.4635</td>
<td></td>
</tr>
</tbody>
</table>

Table 53 Average Formant Values by gender and cohort

7.2.4 Statistical analysis of DRESS

A logistic mixed effects regression (LMER) analysis was used to investigate the significance of two different sets of data. The first included the normalised F1 z-scores of all the participants, with cohort as a factor, to see if the difference between the formant values is significant with the NZE data. The second analysis did the same with the normalised F2 z-scores for the formant values.
The F1 analysis comparing the pronunciation of DRESS of the cohorts against that of the NZE speakers found significance in the values of ASA \((p = .007)\), SAENZ \((p = .008)\) and SAESA \((p = .001)\). The same analysis was insignificant for ANZ \((p = .254)\). The difference between the pronunciations of DRESS for ANZ and NZE is insignificant, implying that the F1 values are similar.

The F2 analysis comparing the cohorts against the pronunciation of the NZE cohort found no significance for ASA \((p = .190)\), SAENZ \((p = .181)\), SAESA \((p = .308)\) and ANZ \((p = .441)\). This result indicates that no difference between NZE and the other dialects can be determined.

Overall, the data indicates a possible movement of the ANZ articulation of DRESS towards that of NZE, especially with the normalised F1 values which were
insignificant after the analysis was completed. The F2 values on figure 6 illustrate a movement of the ANZ F2 values to become more fronted towards the NZE values, but the already fronted articulations of the SAESA, ASA and SAENZ cohorts made it difficult for the analysis to show this and found the pronunciation of all cohorts insignificant to that of NZE. The data suggests a movement in the articulation of DRESS by the ANZ towards the NZE realisation.

### 7.2.5 Realisation of TRAP

There were a total of 20 tokens of TRAP per reading in the text which totalled 740 tokens of TRAP over the cohorts that were analysed. The environments in which TRAP appeared were word initial and syllable medial; e.g. *practice, that*.

The environments in which TRAP appeared in the reading were:

<table>
<thead>
<tr>
<th>Environments of TRAP</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>/hæ-/-</td>
<td>/æt/</td>
</tr>
<tr>
<td>/præ-/-</td>
<td>/ðæ-/-</td>
</tr>
<tr>
<td>/træ-/-</td>
<td>/ʤæ-/-</td>
</tr>
<tr>
<td>/æd-/-</td>
<td>/bæ-/-</td>
</tr>
<tr>
<td></td>
<td>/-læks-</td>
</tr>
</tbody>
</table>

Table 56 Environments of TRAP from the passage

Table 57 below gives the normalised formant values in z-scores for each cohort for the TRAP vowel. A Lobanov normalisation procedure generated the z-scores from the formant values, F1 and F2, of each token made by the participants during their reading. All participants produced 20 TRAP tokens for analysis.
The normalised formant data in the table above, and in figure 6, shows some interesting findings. Firstly, the TRAP pronunciation from the NZE cohort was different to what was expected of NZE. It is a common fact that the pronunciation of TRAP in the speech of NZE speakers has raised significantly compared to other dialects (Bauer et al., 2007; Langstrof, 2011; Trudgill et al., 1998). While the results from this study do show a raised F1, as illustrated in figure 6, the results also show a relatively centralised F2 from the NZE cohort. This was strange as normally the TRAP vowel from NZE speakers resides around cardinal 3, although one recent study found some tokens from speakers to be more centralised (Scharinger & Idsardi, 2014); however, this does not appear to be the norm. The SAESA cohort also appears to have raised and centralised their TRAP vowel, although it is more centralised than that of the NZE cohort. The SAENZ cohort show a TRAP vowel which appears to have been slightly raised when compared with the ASA cohort. The ASA cohort has the most open realisation of the TRAP vowel.

The pronunciation of TRAP in the ANZ cohort appears to have become closer than that of their ASA counterparts, with a closer F1 value. There is also similarity with the NZE speakers with a very similar F2 value. Compared to the pronunciation of TRAP by the ASA cohort, that of the ANZ cohort is more centralised (following the NZE trend).

<table>
<thead>
<tr>
<th></th>
<th>F1</th>
<th>F2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASA</td>
<td>0.9479</td>
<td>0.2703</td>
</tr>
<tr>
<td>ANZ</td>
<td>0.727429</td>
<td>0.115286</td>
</tr>
<tr>
<td>NZE</td>
<td>0.423</td>
<td>0.1375</td>
</tr>
<tr>
<td>SAENZ</td>
<td>0.564375</td>
<td>0.22925</td>
</tr>
<tr>
<td>SAESA</td>
<td>0.303833</td>
<td>-0.27333</td>
</tr>
</tbody>
</table>

Table 57 Normalised Z-Scores for cohort
The data of the TRAP vowel across the genders shows that each cohort appears to be quite distinct in their TRAP realisations (as illustrated on figure 9). The female and male realisations of each cohort appear to be similar after normalisation. The male realisations of TRAP are closer than their female counterparts for all cohorts with the exception of the SAENZ participants. The NZE realisations are the most raised and display the typical raised TRAP of NZE. The Afrikaans-speaking cohorts maintained the most open realisations of TRAP as both genders of the ASA cohort have most open F1 value.

There is some difference illustrated in figure 9 in the realisations of TRAP between the ANZ and ASA cohorts. Both genders of the ANZ cohort had raised F1 values compared to their ASA counterparts. Similarly, the FANZ participants exhibit a more centralised F2 for TRAP, in line with the FNZE cohort. Compared with the NZE
realisations, the realisations of ASA and ANZ are similarly open. Any difference is suggestive of a possible change in progress. Table 58 shows the normalised data for the formant values by gender for each cohort as displayed in figure 9.

<table>
<thead>
<tr>
<th>TRAP</th>
<th>Cohort</th>
<th>Females F1</th>
<th>Females F2</th>
<th>Males F1</th>
<th>Males F2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANZ</td>
<td>0.826</td>
<td>0.092</td>
<td>0.944</td>
<td>0.082</td>
<td></td>
</tr>
<tr>
<td>ASA</td>
<td>0.971</td>
<td>0.299</td>
<td>0.7255</td>
<td>0.0565</td>
<td></td>
</tr>
<tr>
<td>NZE</td>
<td>0.1755</td>
<td>0.1505</td>
<td>0.0485</td>
<td>-0.0225</td>
<td></td>
</tr>
<tr>
<td>SAENZ</td>
<td>0.49</td>
<td>0.236</td>
<td>0.615</td>
<td>0.276</td>
<td></td>
</tr>
<tr>
<td>SAESA</td>
<td>0.276</td>
<td>-0.3555</td>
<td>0.257</td>
<td>-0.335</td>
<td></td>
</tr>
</tbody>
</table>

Table 58 Average TRAP formant values by cohort and gender

7.2.6 Statistical analysis of TRAP

A logistic mixed effects regression (LMER) analysis was used to investigate the significance of two different sets of data. The first included the normalised F1 z-scores of all the participants, with cohort as a factor, to see if the difference between the formant values is significant with the NZE data. The second analysis did the same with the normalised F2 z-scores for the formant values.
### Estimates of Fixed Effects

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Cohort=ANZ]</td>
<td>0.593762</td>
<td>0.093711</td>
<td>6.336</td>
<td>0.000</td>
</tr>
<tr>
<td>[Cohort=ASA]</td>
<td>0.814233</td>
<td>0.071010</td>
<td>11.466</td>
<td>0.000</td>
</tr>
<tr>
<td>[Cohort=SAENZ]</td>
<td>0.430708</td>
<td>0.089721</td>
<td>4.801</td>
<td>0.001</td>
</tr>
<tr>
<td>[Cohort=SAESA]</td>
<td>0.170167</td>
<td>0.122363</td>
<td>1.391</td>
<td>0.208</td>
</tr>
</tbody>
</table>

Table 59 LMER analysis for TRAP F1

The F1 analysis comparing the cohorts against NZE found significance in the normalised formant values of ASA ($p < .0001$), SAENZ ($p = .001$) and ANZ ($p < .0001$). The analysis determined the F1 values of the SAESA cohort to be insignificant ($p = .208$). The difference between the ANZ cohort and the NZE participants is significant.

### Estimates of Fixed Effects

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Cohort=ANZ]</td>
<td>0.023952</td>
<td>0.086330</td>
<td>0.277</td>
<td>0.787</td>
</tr>
<tr>
<td>[Cohort=ASA]</td>
<td>0.178967</td>
<td>0.082493</td>
<td>2.169</td>
<td>0.049</td>
</tr>
<tr>
<td>[Cohort=SAENZ]</td>
<td>0.137917</td>
<td>0.092179</td>
<td>1.496</td>
<td>0.160</td>
</tr>
<tr>
<td>[Cohort=SAESA]</td>
<td>-0.364667</td>
<td>0.178234</td>
<td>-2.046</td>
<td>0.085</td>
</tr>
</tbody>
</table>

Table 60 LMER analysis for TRAP F2

The F2 analysis found a significant difference between the F2 values of the ASA cohort ($p = .049$) and the F2 values of the NZE cohort. The same analysis with the other cohorts was insignificant against the NZE F2 values: ASA ($p = .787$), SAENZ ($p = .160$) and SAESA ($p = .085$). The result between the F2 values of the NZE and ANZ cohorts was insignificant, possibly implying a change in pronunciation towards the NZE realisation of TRAP.

Overall, the normalised formant values displayed in figure 6 indicate a possible change in pronunciation of TRAP by the ANZ cohort towards that of the NZE speakers. The statistical analysis found that the F1 values of the two cohorts were significant,
while the F2 values were insignificant. This could possibly indicate that the ANZ cohort have moved the F2 of their TRAP vowels towards that of the NZE cohort more than their F1.

7.2.7 KIT, DRESS and TRAP Movement

The analysis of KIT, DRESS and TRAP shows that the realisations of these three vowels by the ANZ cohort appear to have moved. Refer to figure 6 for graphic illustration of this statement. In §4.1.1, the front vowel shift in NZE was discussed and considered two theories, that of a pull chain initiated by the centralisation of the KIT vowel (Batterham, 1996; Maclagan, 2000), and that of a push chain initiated by the raising of the TRAP vowel (Bauer, 1992; Gordon, 2004; Langstrof, 2006a; Trudgill, 1986). The same pattern occurred in the SAE dialect, with TRAP being raised and causing DRESS to become raised and the KIT vowel to split (Bowerman, 2004; Mesthrie, 1993).

The results of the analysis show that, of these three vowels, the articulation of DRESS by the ANZ cohort is the most similar to that of the NZE cohort as both normalised F1 and F2 values were similar and the LMER analyses found the differences between the two cohorts in F1 and F2 to be insignificant, implying a similar pronunciation. Only the F2 analyses of the KIT and TRAP vowels found the difference between the pronunciation of the ANZ cohort and that of the NZE cohort to be similar, although the normalised data on figure 6 indicates some movement may have occurred.

Such results are interesting because the phonological system of Afrikaans already has a centralised vowel /ə/ (Coetzee, 1981b; Donaldson, 1993) and this would suggest that the ANZ cohort should be able to produce a vowel similar to the NZE cohort; however, they do not. The KIN-PIN split in Afrikaans English (Branford, 1994) is the phenomenon where Afrikaans speakers of English have two distinct realisations
of the KIT vowel, one closer and one more centralised. This analysis looked at tokens which would elicit the typically closer variant in Afrikaans English and found that the ANZ cohort had moved the KIT vowel back in the mouth towards that of NZE, but had not yet significantly lowered it.

The results of the analysis of the three front vowels could imply that a movement in the pronunciation of the short front vowels in the speech of the ANZ cohort has occurred, and that such movement began with the DRESS vowel, thus pushing the KIT vowel inwards to maintain distinction in the vowel space from the encroaching DRESS vowel. The TRAP vowel could very well follow in this situation eventually, but only the F2 appears to be approximating towards the NZE realisation at this stage. The concept of the push or pull chain shift is from historical linguistics, dating back from when the dialects formed and the lack of a TRAP realisation approximating upwards towards that of the NZE cohort indicates that the ANZ cohort are not following a similar pattern. This DRESS initiated chain shift could affect KIT as shown above, and would be a novel approach to examining the short front vowels in the pronunciation of L2 NZE. DRESS is known for being very fronted and characteristic of the NZE dialect (Bauer et al., 2007; Gordon et al., 2004; Maclagan & Hay, 2007; McKenzie, 2005), and it might be that the distinct articulation of DRESS enables the ANZ participants to more easily accommodate towards the NZE articulation following the idea of Flege’s (1987) equivalence classification hypothesis; that more advanced speakers of an L2 would more easily learn sounds that were relatively new to them; similar to the results of Bohn and Flege’s study (Bohn & Flege, 1992).
7.2.8 Realisation of LOT

This analysis looked at the realisation of LOT. There were a total of 13 tokens of LOT per speaker which totalled 481 tokens over the cohorts. The environments in which LOT occurred are shown in the table below. The tokens investigated were syllable initial and syllable medial; e.g. *was, odd*.

<table>
<thead>
<tr>
<th>Environments for LOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ɒd/</td>
</tr>
<tr>
<td>/ɒv/</td>
</tr>
<tr>
<td>/ɡɒt/</td>
</tr>
<tr>
<td>/ʌt/</td>
</tr>
<tr>
<td>/ŋt/</td>
</tr>
<tr>
<td>/ɔŋ-/-</td>
</tr>
<tr>
<td>/sɔŋ-/-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environments for LOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ɒŋ/</td>
</tr>
<tr>
<td>/klɒθ/</td>
</tr>
<tr>
<td>/ɒf-/-</td>
</tr>
<tr>
<td>/ɒt/</td>
</tr>
<tr>
<td>/ʤɒb/</td>
</tr>
<tr>
<td>/wɒf-/-</td>
</tr>
<tr>
<td>/kɒst/</td>
</tr>
<tr>
<td>/wɒz/</td>
</tr>
</tbody>
</table>

*Table 61 Environments for LOT in the reading*

Figure 13 below provides graphic illustration of the vowels LOT, GOOSE and START for all cohorts. Other vowels in this figure are discussed in the following two sections too.
The table below provides the normalised formant data in z-scores for comparison. The data indicates a relatively similar pronunciation of LOT for most cohorts, with the SAESA cohort having a more fronted realisation.

<table>
<thead>
<tr>
<th></th>
<th>F1</th>
<th>F2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASA</td>
<td>0.863</td>
<td>-1.39</td>
</tr>
<tr>
<td>ANZ</td>
<td>1.041571</td>
<td>-1.55486</td>
</tr>
<tr>
<td>NZE</td>
<td>0.927833</td>
<td>-1.458</td>
</tr>
<tr>
<td>SAENZ</td>
<td>0.983</td>
<td>-1.4995</td>
</tr>
<tr>
<td>SAESA</td>
<td>0.957</td>
<td>-0.934</td>
</tr>
</tbody>
</table>

Table 62 Normalised Z-Scores of LOT by Cohort

The normalised values provided above and illustrated in figure 13 shows that there is little difference in the pronunciation of LOT between the NZE, SAENZ, ASA and ANZ cohorts. When compared with the NZE pronunciation of LOT, the ASA
pronunciation is slightly more fronted and that of the ANZ is realisation with the
tongue slightly farther back and slightly more open. However, the difference is slight.
The SAESA pronunciation of LOT is the most fronted, however their F1 value is similar
to that of the other cohorts.

![LOT - Female and Male](image)

When the data on the genders is compared, as displayed in figure 11, there is no
pattern apparent. All the cohorts appear to be similar in the height of LOT produced in
the mouth. The female participants exhibited the most variation in their realisations of
LOT with the FSAESA participants particularly centralised compared to the back
articulation of the FANZ participants. The male participants of the NZE, ASA and
SAENZ cohorts are similar in pronunciation of LOT. Overall, the male participants
display the most similar realisations between the different cohorts. The NZE cohort
seems to have the least variation between the genders.
Table 63 shows the raw frequency data for the formant values by gender for each cohort, as displayed in figure 11.

<table>
<thead>
<tr>
<th>LOT</th>
<th>Cohort</th>
<th>Females F1</th>
<th>Females F2</th>
<th>Males F1</th>
<th>Males F2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANZ</td>
<td>1.07</td>
<td>-1.777</td>
<td>1.04</td>
<td>-1.2855</td>
<td></td>
</tr>
<tr>
<td>ASA</td>
<td>0.851</td>
<td>-1.314</td>
<td>0.973</td>
<td>-1.466</td>
<td></td>
</tr>
<tr>
<td>NZE</td>
<td>0.902</td>
<td>-1.4675</td>
<td>0.989</td>
<td>-1.4175</td>
<td></td>
</tr>
<tr>
<td>SAENZ</td>
<td>0.988</td>
<td>-1.582</td>
<td>0.941</td>
<td>-1.49</td>
<td></td>
</tr>
<tr>
<td>SAESA</td>
<td>0.909</td>
<td>-0.905</td>
<td>0.957</td>
<td>-1.1795</td>
<td></td>
</tr>
</tbody>
</table>

Table 63 Average LOT formant values by group and gender
7.2.9 Statistical Analysis of LOT

A linear mixed effects regression (LMER) analysis was used to investigate the significance of two different sets of data. The first included the normalised F1 z-scores of all the participants, with cohort as a factor, to see if the difference between the formant values is significant with the NZE data. The second analysis did the same with the normalised F2 z-scores for the formant values.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Cohort=ANZ]</td>
<td>0.113738</td>
<td>0.100831</td>
<td>1.128</td>
<td>0.292</td>
</tr>
<tr>
<td>[Cohort=ASA]</td>
<td>-0.021433</td>
<td>0.068038</td>
<td>-0.315</td>
<td>0.757</td>
</tr>
<tr>
<td>[Cohort=SAENZ]</td>
<td>0.044792</td>
<td>0.070385</td>
<td>0.636</td>
<td>0.537</td>
</tr>
<tr>
<td>[Cohort=SAESA]</td>
<td>0.009667</td>
<td>0.063654</td>
<td>0.152</td>
<td>0.883</td>
</tr>
</tbody>
</table>

Table 64 LMER analysis for LOT F1

The analysis comparing the normalised F1 values of the cohorts against that of the NZE cohort was insignificant for all cohorts: ASA \((p = .757)\), ANZ \((p = .292)\), SAENZ \((p = .537)\) and SAESA \((p = .883)\). This indicates that the F1 values from the cohorts were not significantly different from the NZE F2 values of LOT to find significance.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Cohort=ANZ]</td>
<td>-0.096857</td>
<td>0.120254</td>
<td>-0.805</td>
<td>0.445</td>
</tr>
<tr>
<td>[Cohort=ASA]</td>
<td>0.112900</td>
<td>0.105082</td>
<td>1.074</td>
<td>0.304</td>
</tr>
<tr>
<td>[Cohort=SAENZ]</td>
<td>-0.023500</td>
<td>0.092015</td>
<td>-0.255</td>
<td>0.803</td>
</tr>
<tr>
<td>[Cohort=SAESA]</td>
<td>0.354833</td>
<td>0.141884</td>
<td>2.501</td>
<td>0.046</td>
</tr>
</tbody>
</table>

Table 65 LMER analysis for LOT F2

Overall, the analysis of LOT shows that the F1 and F2 values for the ANZ participants are insignificant when compared to that of both the ASA cohort and the NZE cohort. The ANZ pronunciation of LOT is farther back and more open than that of
the other cohorts, although the difference is slight as seen in the results of the analysis. The ASA and NZE cohorts were very similar in realisation of LOT, as seen in figure 13. There is little to be construed from the analysis of LOT as all cohorts appear to be similar in pronunciation. A change might be implied in the graphs with the ANZ speakers overdoing any noticeable change in their LOT vowel when attempting to mimic the speech of NZE speakers, but there is not enough data to back such a suggestion.

7.2.10 Realisation of START

This analysis comprises the realisation of START. There were a total of four tokens of START per speaker which totalled 148 tokens over the cohorts. The environments in which START occurred are shown in the table below. The tokens investigated were always syllable medial; e.g. *start, bath*.

<table>
<thead>
<tr>
<th>Environments for START in the reading</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>/staːt/</td>
<td>/pʰaːm/</td>
</tr>
<tr>
<td>/baːθ/</td>
<td>/kʰaːnt/</td>
</tr>
</tbody>
</table>

Table 66 Environments for START

Table 60 gives the normalised z-score values per cohort for START. Any individual speaker values which are used for the description are explained where appropriate. All participants produced all four measureable tokens of START.
The normalised formant data above, and illustrated in figure 13, shows three different pronunciations of START in this study. The NZE cohort has the typical centralised realisation of the START vowel ((Bell & Kuiper, 2000; Gordon et al., 2004), while the South Africa-residing cohorts, SAESA and ASA, appear to have a more backed and closer realisation at the same F1 value as their LOT vowel.

The New Zealand-residing cohorts, SAENZ and ANZ, exhibit a more open and fronted START vowel. While not as open as that of the NZE cohort, the START vowel from the ANZ and SAENZ appears to have a similar amount of fronting, even more fronted than the NZE START. The normalised data suggests that perhaps there is a movement towards that of NZE, even though the vowel is more fronted. The NZE START vowel can be very fronted in some individuals, e.g. FNZE2 with an F2 of over 1620Hz. This may affect the pronunciation of the ANZ and SAENZ speakers as they try to make sense of the NZE dialect. Another explanation is the explanation that Afrikaans as a short /a/ vowel (Donaldson, 1993; Wissing, 2012), closer in realisation to the NZE START vowel. This may have facilitated the transfer towards the NZE realisation of START and contributed towards the more fronted realisation.

### Table 67 Normalised Z-Scores for START by cohort

<table>
<thead>
<tr>
<th></th>
<th>F1</th>
<th>F2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASA</td>
<td>0.9614</td>
<td>-1.3435</td>
</tr>
<tr>
<td>ANZ</td>
<td>1.562</td>
<td>-1.2955</td>
</tr>
<tr>
<td>NZE</td>
<td>1.815</td>
<td>-0.25</td>
</tr>
<tr>
<td>SAENZ</td>
<td>1.4465</td>
<td>-1.421</td>
</tr>
<tr>
<td>SAESA</td>
<td>0.9475</td>
<td>-1.1625</td>
</tr>
</tbody>
</table>

The normalised formant data above, and illustrated in figure 13, shows three different pronunciations of START in this study. The NZE cohort has the typical centralised realisation of the START vowel ((Bell & Kuiper, 2000; Gordon et al., 2004), while the South Africa-residing cohorts, SAESA and ASA, appear to have a more backed and closer realisation at the same F1 value as their LOT vowel.

The New Zealand-residing cohorts, SAENZ and ANZ, exhibit a more open and fronted START vowel. While not as open as that of the NZE cohort, the START vowel from the ANZ and SAENZ appears to have a similar amount of fronting, even more fronted than the NZE START. The normalised data suggests that perhaps there is a movement towards that of NZE, even though the vowel is more fronted. The NZE START vowel can be very fronted in some individuals, e.g. FNZE2 with an F2 of over 1620Hz. This may affect the pronunciation of the ANZ and SAENZ speakers as they try to make sense of the NZE dialect. Another explanation is the explanation that Afrikaans as a short /a/ vowel (Donaldson, 1993; Wissing, 2012), closer in realisation to the NZE START vowel. This may have facilitated the transfer towards the NZE realisation of START and contributed towards the more fronted realisation.
The normalised data for the START vowel as realisation by female and male participants is presented in figure 12. It is immediately obvious that the NZE cohorts exhibit their characteristic centralised START vowel. The SAESA and ASA exhibit a backed realisation of the START vowel.

The SAENZ participants, both male and female, appear to have maintained their articulation of START in the back of the mouth. This is the similarly the case with the FANZ participants, they have maintained a realisation of START near the back of the mouth. However, the realisation of the MANZ participants appears to have centralised to a degree, possibly approximating towards that of NZE. When the ASA and ANZ cohorts are compared, the only obvious difference lies in the centralised realisation of the MANZ cohort when compared to the backed articulation of their MASA.
counterparts. Table 68 shows the raw frequency data for the formant values by gender for each cohort, as displayed in figure 12.

<table>
<thead>
<tr>
<th>START</th>
<th>Cohort</th>
<th>Females F1</th>
<th>Females F2</th>
<th>Males F1</th>
<th>Males F2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANZ</td>
<td>1.674</td>
<td>-1.462</td>
<td>1.205</td>
<td>-0.8835</td>
<td></td>
</tr>
<tr>
<td>ASA</td>
<td>1.016</td>
<td>-1.256</td>
<td>1.177</td>
<td>-1.393</td>
<td></td>
</tr>
<tr>
<td>NZE</td>
<td>1.745</td>
<td>-0.69</td>
<td>1.849</td>
<td>-0.6345</td>
<td></td>
</tr>
<tr>
<td>SAENZ</td>
<td>1.398</td>
<td>-1.324</td>
<td>1.735</td>
<td>-1.518</td>
<td></td>
</tr>
<tr>
<td>SAESA</td>
<td>0.805</td>
<td>-1.1625</td>
<td>1.2635</td>
<td>-1.2105</td>
<td></td>
</tr>
</tbody>
</table>

Table 68 Average START formant values by cohort and gender

7.2.11 Statistical Analysis of START

A linear mixed effects regression (LMER) analysis was used to investigate the significance of two different sets of data. The first included the normalised F1 z-scores of all the participants, with cohort as a factor, to see if the difference between the formant values is significant with the NZE data. The second analysis did the same with the normalised F2 z-scores for the formant values.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Cohort=ANZ]</td>
<td>-0.428190</td>
<td>0.238302</td>
<td>-1.797</td>
<td>0.111</td>
</tr>
<tr>
<td>[Cohort=ASA]</td>
<td>-0.813933</td>
<td>0.117619</td>
<td>-6.920</td>
<td>0.000</td>
</tr>
<tr>
<td>[Cohort=SAENZ]</td>
<td>-0.404833</td>
<td>0.202327</td>
<td>-2.001</td>
<td>0.074</td>
</tr>
<tr>
<td>[Cohort=SAESA]</td>
<td>-0.780667</td>
<td>0.168155</td>
<td>-4.643</td>
<td>0.002</td>
</tr>
</tbody>
</table>

Table 69 LMER analysis for START F1
The F1 analysis which used the normalised F1 values for each cohort and compared them against the same NZE values was significant for the ASA ($p < .0001$) and the SAESA ($p = .002$) cohorts. The analysis found insignificance for the ANZ cohort ($p = .111$) and nearing significance for the SAENZ cohort ($p = .074$). The insignificance between the normalised F1 values between the ANZ and NZE cohorts implies that a movement in the height of ANZ START might have occurred.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Cohort=ANZ]</td>
<td>-0.556262</td>
<td>0.164655</td>
<td>-3.378</td>
<td>0.013</td>
</tr>
<tr>
<td>[Cohort=ASA]</td>
<td>-0.649733</td>
<td>0.122182</td>
<td>-5.318</td>
<td>0.000</td>
</tr>
<tr>
<td>[Cohort=SAENZ]</td>
<td>-0.612333</td>
<td>0.125281</td>
<td>-4.888</td>
<td>0.001</td>
</tr>
<tr>
<td>[Cohort=SAESA]</td>
<td>-0.523333</td>
<td>0.141885</td>
<td>-3.688</td>
<td>0.011</td>
</tr>
</tbody>
</table>

Table 70 LMER analysis for START F2

The F2 analysis was significant between the NZE cohort and all other cohorts: SAENZ ($p = .001$), SAESA ($p = .011$), ASA ($p < .0001$) and ANZ ($p = .013$). This result indicates that the values of the F2 between the cohorts are not similar, even though the South African-residing cohorts have an F2 which is realised with the tongue farther back, and the New Zealand-residing cohorts have F2s that are more fronted than that of the NZE cohort as illustrated in the figure.

Overall, the analysis of START suggests that the pronunciation of the START vowel by the ANZ and SAENZ cohorts is different from the realisation of the NZE cohort normalised F2 values. The F1 values of the SAENZ and ANZ cohorts were insignificant with that of the NZE cohorts. The results imply that perhaps there is a change going on, but it might be too early to fully understand the extent to which the pronunciation might change.
7.2.12 Realisation of GOOSE

There were a total of 17 tokens of GOOSE per speaker which totalled 629 tokens over the cohorts. The environments in which GOOSE occurred are shown in the table below. The tokens investigated were syllable-final or syllable medial; e.g. you, goose.

<table>
<thead>
<tr>
<th>Environments for GOOSE in the reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ju:/</td>
</tr>
<tr>
<td>/zu:/</td>
</tr>
<tr>
<td>/nju:/</td>
</tr>
<tr>
<td>/ʤu:/</td>
</tr>
<tr>
<td>/bju:-</td>
</tr>
<tr>
<td>/hjü:/ - /çü:/</td>
</tr>
</tbody>
</table>

Table 71 Environments for GOOSE in the reading

Table 63 below gives the normalised formant values per cohort for GOOSE in z-scores. Any individual speaker values which are used for the description are explained where appropriate. All participants produced all tokens of GOOSE. Refer to figure 13 for a graphic illustration of the GOOSE vowel by the cohorts.

<table>
<thead>
<tr>
<th></th>
<th>F1</th>
<th>F2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASA</td>
<td>-1.098</td>
<td>-0.5</td>
</tr>
<tr>
<td>ANZ</td>
<td>-0.987</td>
<td>0.02</td>
</tr>
<tr>
<td>NZE</td>
<td>-0.7445</td>
<td>-0.134</td>
</tr>
<tr>
<td>SAENZ</td>
<td>-1.071</td>
<td>-0.0111</td>
</tr>
<tr>
<td>SAESA</td>
<td>-0.802</td>
<td>-0.291</td>
</tr>
</tbody>
</table>
The normalised formant data in the table above, and in figure 13, show the typical fronted realisation of GOOSE by the NZE cohort (Batterham, 1996; Bauer et al., 2007; Bell & Kuiper, 2000; Gordon et al., 2004; Gordon & Deverson, 1998). The F1 value of the NZE cohort was the most open; however, the SAESA cohort was similarly open in their pronunciation of GOOSE. The ANZ and SAENZ pronunciations of GOOSE were the most fronted compared to the other cohorts, more fronted than the NZE cohort. This is not surprising as there are some tendencies for SAE speakers to front their GOOSE vowel significantly (Bekker & Eley, 2007; Bowerman, 2004). The ASA realisation of GOOSE was the closest and farthest back in the mouth according to the normalised data from the vowels. Refer to figure 10 for graphic illustration of this point. At this stage, it would appear that there has been possibly been some movement in the pronunciation of GOOSE from the ANZ speakers around the pronunciation of the NZE cohort.
The normalised vowel data of GOOSE by cohort and gender is presented in figure 12 above. The data shows that the GOOSE vowel is relatively centralised for all cohorts with the ASA cohorts articulating it farthest back in the mouth and the NZE cohorts front it the most as a cohort. All of the English-speaking cohorts, regardless of gender, produce a more fronted vowel than their Afrikaans counterparts.

The most fronted GOOSE vowel in the data is that from the MSAESA participants, closely followed by the FSAENZ participants. There appears to be some difference in realisation between the genders in the SAENZ and SAESA cohorts as they display the greatest distance in the vowel space.

The Afrikaans-speaking cohorts and the NZE-speaking cohort appear to have similar realisations of GOOSE between their respective genders. There is some
difference in the articulation of GOOSE between the ANZ and ASA participants. Both of the ANZ genders place GOOSE in a more centralised and open position in the mouth, whereas their ASA counterparts have a closer realisation that is farther back in the vowel space. The ANZ participants appear to be approximating towards the NZE realisation in figure 13; however, the movement is not obvious yet and might only be suggestive of a movement in process. Table 74 shows the normalised GOOSE data for the formant values by gender for each cohort, as displayed in figure 13.

<table>
<thead>
<tr>
<th>GOOSE</th>
<th>Cohort</th>
<th>Females F1</th>
<th>Females F2</th>
<th>Males F1</th>
<th>Males F2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANZ</td>
<td>-0.987</td>
<td>0.02</td>
<td>-0.989</td>
<td>0.1095</td>
<td></td>
</tr>
<tr>
<td>ASA</td>
<td>-1.134</td>
<td>-0.146</td>
<td>-1.062</td>
<td>-0.134</td>
<td></td>
</tr>
<tr>
<td>NZE</td>
<td>-0.7705</td>
<td>0.3325</td>
<td>-0.7115</td>
<td>0.3875</td>
<td></td>
</tr>
<tr>
<td>SAENZ</td>
<td>-1.06</td>
<td>0.436</td>
<td>-1.196</td>
<td>0.194</td>
<td></td>
</tr>
<tr>
<td>SAESA</td>
<td>-0.7075</td>
<td>0.1575</td>
<td>-0.9945</td>
<td>0.485</td>
<td></td>
</tr>
</tbody>
</table>

Table 73 Average GOOSE formant values by cohort and gender

7.2.13 Statistical Analysis of GOOSE

A linear mixed effects regression (LMER) analysis was used to investigate the significance of two different sets of data. The first included the normalised F1 z-scores of all the participants, with cohort as a factor, to see if the difference between the formant values is significant with the NZE data. The second analysis did the same with the normalised F2 z-scores for the formant values.
The F1 analysis that was run with the normalised F1 data of the cohorts against that of the NZE cohorts was significant for the SAENZ ($p < .0001$), ASA ($p = .010$) and ANZ ($p = .003$) cohorts. The same analysis was insignificant for the SAESA cohort ($p = .524$). The results imply that the F1 of the ANZ and SAENZ cohorts has remained quite different from that of the NZE cohort.

The F2 analysis was insignificant for the SAENZ cohort ($p = .374$) and the SAESA ($p = .555$) cohort. The same analysis was significant for the ASA ($p < .0001$) and the ANZ ($p = .025$) cohorts. These results imply that the F2 value of the ANZ cohort has not approximated towards the realisation of the NZE cohort.

Overall, this analysis using the normalised formant data of GOOSE suggests that the ANZ and SAENZ realisation of GOOSE has not moved towards that of their NZE speaking counterparts. This is the result that is illustrated in figure 13. Although when considered separately and using raw formant frequencies, the different genders show
what might have been expected of an approximation towards NZE, the data is not normalised using the mean of all the different lexical classes and can only be taken as a possible, yet weak, indication.

7.3 Conclusion of Quantitative Analysis

The quantitative analysis has shown that there are differences in the ANZ speakers’ pronunciation systems which may suggest a movement towards that of the NZE cohort. The results of the consonant analyses suggest aspiration is becoming more common in all the ANZ participants and this is validated by the results from the LMER analyses. There was more variation among the vowels. The LMER analyses showed that in some vowels, like START, the F1 of the ANZ cohort was similar to that of the NZE speakers. In other vowels, such as KIT and TRAP, the analyses indicated that the F2 of the ANZ cohort was similar to that of the NZE speakers. In other vowels, like DRESS, both formant values were considered similar to NZE when compared with the other cohorts.

A quick look at the genders suggests that both males and females tend to move towards NZE articulations, although female ANZ participants appear to move closer towards the female NZE realisations most of the time, especially with consonants. This result would concur with several studies (Eckert & McConnell-Ginet, 2013; Labov, 2001; Labov, Ash, Baranowski, et al., 2006; Shin & Otheguy, 2013; Spezzini, 2004; Thompson, 1991); however, more analysis would need to be done. For clarification, refer to the limitations section in chapter ten.
Chapter 8

Findings - Qualitative Data

8.0 Overview

This chapter comprises the information provided by the participants in the interviews. Each section is ordered by theme and makes comparisons between the responses. The most commonly mentioned theme is discussed first, followed by the second-most common theme, and so forth. This chapter will analyse the qualitative data only, seeking to identify patterns in the interview data and how these connect with the literature and with the concept of identity.

The analysis identifies four central topics in the interviews, namely reasons to move (§8.1), consequences of moving (§8.2), identity and opinions (§8.3), and lastly, change in language use (§8.4). This section focuses on the ASA, ANZ, and the SAENZ participants and discusses differences between those who remained in South Africa and those who migrated to New Zealand. As discussed in chapter six, the ASA participants were given different questions as they had not moved countries. These answers were coded in a similar style and are mentioned in the appropriate sections below.

Following Norton’s (1997, p. 410) definition of identity which takes into consideration an individual’s past, present and future, the sections in this chapter try to identify possible links between the participants’ observations of their lives post-relocation and to suggest how this may have affected their sense of self.

In chapter 5, the literature review dealt with the reality that relocation causes significant stress and a feeling of displacement which is often underestimated by South
African migrants prior to relocation to New Zealand (Winbush & Selby, 2015). It has also been suggested that those migrants who leave South Africa dissatisfied with the new regime or fearful of the rise in violent crime are more likely to desire new affiliations with New Zealand as a country and the culture of the people (V de Klerk & Barkhuizen, 2004). The literature review also considered the role that various social factors, such as the desire to join a community had in SLA, and also considered the Speech Accommodation hypothesis (SAT) in that a speaker’s desire to identify with a certain group will cause accommodation to their way of speaking (Beebe & Giles, 1984; Tarone, 2006). Identification with the target group, as in the acculturation theory (Schumann, 1978a), and integration into a new community can affect a speaker’s success (Lybeck, 2002) or failure (Schumann, 1978b) to acquire an additional language. Some speakers actively seek out opportunities to interact in the target language (Murphy, 2014). Learners who speak more of the target language will have less of a foreign accent (Flege et al., 1999). This chapter uses the data and opinions gathered from the participants to determine whether these concepts were important in their post-relocation environment.

8.1 Qualitative – Reasons for Moving

The first section describes reasons that influence the decision to move to New Zealand. These reasons may be pull factors from New Zealand or push factors from South Africa, given in the form of pros and cons for either country. All participants commented on discrimination they had been aware of in South Africa, security issues (both mental and physical), opportunities (work and education), and economy and politics. The SAENZ and ANZ groups also commented on the positive things about New Zealand. Table 65 below shows the themes identified by the participants, and the percentage of participants in each cohort who identified the theme.
As the theme of discrimination was more often than not inextricably linked with comments on potential opportunities, there two themes are described together in §8.1.3.

This sections attempts to provide a base for the later development of reasons which may influence a change in identity in the Afrikaans speakers who have relocated to New Zealand. The stronger the motivations to leave South Africa, the stronger the disaffiliation with the home country can possibly become (Barkhuizen & de Klerk, 2006). This creates a space in which a different, New Zealand identity can develop. These reasons to leave are the seeds from which the participants’ new identities grow, facilitating a change in language post-relocation.

### 8.1.1 Safety

Safety was the most commonly discussed reason for moving for the ANZ participants (n = 7) and the SAENZ participants (n = 8). It was the second most commonly discussed amongst the ASA participants (n = 8).

There were several comments about the general nature of safety in South Africa made by participants in all three cohorts. Examples from each cohort are given below:

<table>
<thead>
<tr>
<th></th>
<th>Safety</th>
<th>Discrimination</th>
<th>Opportunity</th>
<th>Politics &amp; Economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASA</td>
<td>80</td>
<td>20</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>ANZ</td>
<td>100</td>
<td>25</td>
<td>38</td>
<td>75</td>
</tr>
<tr>
<td>SAENZ</td>
<td>100</td>
<td>0</td>
<td>86</td>
<td>71</td>
</tr>
</tbody>
</table>

Table 76 Themes by percentage of participants by cohort
FASA4: The crime, the general safety. It can be terrifying at times.

MSAENZ3: ... having grown up in South Africa there’s always the question of security, not only physical security but, you know, just a mentality of security. You know? You don’t necessarily feel safe wherever you are. You’re always on edge.

MANZ4: We were fortunate when we still lived in Stellenbosch, it was pretty safe but now it’s changed a bit.

The examples above reflect the influence that the high crime rate in South Africa has on the South African people (P. Smith, 2001). One participant recounted personal experiences. For example, FASA2 recalled a situation that she had experienced close to the interview date:

FASA2: Like, I, one morning, went jogging just in our area and the next moment I see this white man pulling out a knife and just holding it in front of him like he was looking at it and I went into the first person’s yard with an open gate and just pretended that it was my house ’til he left.

This comment from FASA2 about her safety outdoors in South Africa was further elaborated on by another anecdote about being out on the town in her city and she watched as one security guard shot and killed another. The physical insecurity felt by FASA2 is not shared by participants who have relocated to New Zealand. For example;

FSAENZ4: You’re safe. My mother at eighty ... nearly eighty-nine can walk ... around the retirement village, she can walk up to the shops. She can do what she wants.

FANZ1: I go running here at 8 o’clock at night, even later and have no qualms about it. I feel all right.
The above comments indicate a freedom of movement that these participants did not feel they had before. It is known that New Zealand is a relatively safe country and this factor may influence the participants’ attitudes towards New Zealand. A positive attitude towards the target culture and country is an important factor in the acculturation process which can positively influence the acquisition of an L2, as reflected in the literature (Larsen-Freeman, 2002), as well as in results of studies in bilingual settings (Pullen, 2011; Scherer & Wertheimer, 1964; van Els et al., 1984).

Safety is a significant concern for many of the participants living in New Zealand and the reason a couple of participants have chosen to remain (e.g. FSAENZ3 and FANZ3). This is especially important when children are considered. The safety of their children is identified by several participants in each cohort. The future of an individual’s family can greatly influence their identity by requiring the individual to consider the position they have regarding who they are now and who they might be in the future (Barkhuizen & de Klerk, 2006; Norton, 1997). Some examples are:

FSAENZ3: I don’t have to constantly be looking over my shoulder to see if there is somebody about to attack me. I don’t have to worry about my children.

MANZ2: But I think we feel safe and it’s a better country to bring your kids up for that reason that you can still get outside and you are still given that freedom of going out without hovering over them…

FSAENZ2: Your kids can safely walk around the area without being attacked and going to university for the girls without knowing that they would be raped…

MSAENZ2: …but after having kids, my viewpoints changed and I didn’t see in my schedule of duties burying my kids who’d just been killed for some crazy reason.
A better life for their children is a great influence in the decision-making processes of parents and can increase their investment in a country and its language. This process, and its results, are reflected in a case study by Norton (1995a) who observed that her participant’s role as primary caregiver increased her desire to establish herself in her L2 and acculturate to the new country.

Products relating to security were commonly named throughout the interviews. Examples given were *burglar bars* and *locks* on doors and windows. While locks are an essential everyday item in most places in the world, burglar bars are not so common in New Zealand, especially in the city of Dunedin where some of the participants were living.

FSAENZ3: … *is going to be the crime which is the reason I’m still here … I can live in a house with no burglar bars. I don’t have to lock my doors although I do.*

FSAENZ2: *… well, the whole security thing for me was the one issue, you know? Being able to live here without burglar bars.*

FANZ1: *… it’s the same here in Dunedin. We’ve never had a bad thing happen. Like, no burglary, no home invasion, no car stolen.*

FANZ2: *… not having to lock your doors or windows, you know? When we went to Southland and lived in Otautau, we never locked the doors.*

Safety is an important aspect to a happy lifestyle. These participants all had negative perceptions of the current security in South Africa yet they have elected to remain in South Africa. Often, one of the strongest motivations that South Africans have to leave South Africa is the rising crime rate (P. Smith, 2001), which can create disaffiliation with the home country. This disaffiliation process is obviously not present in these participants, as illustrated by their resilience and decisions to remain in South
Africa, although their determination to stay in South Africa might be the result of their investment (Norton, 1995b) in the country and the Afrikaans culture, so rooted as it is in country and language. The ASA group spoke about their identities in the interviews in ways that suggest a connection to the land which is strong enough to resist the negative perceptions of safety; these aspects of identity are discussed in section 8.3 of this chapter.

The comments given by the participants above are clear. The majority either comment about the relative safety of living in New Zealand or relate it to the insecurity of living in South Africa. The feelings expressed here are similar to those found by Barkhuizen and de Klerk (2006), who suggest that those migrants for whom security was a major concern would feel a desire to disassociate with South Africa and affiliate more with New Zealand where security is relatively better. This desire opens the way for an identity change to occur, in an individual who is already struggling to cope in the wake of culture shock (Winbush & Selby, 2015) and identity vulnerability (Sawicki, 2011). This disassociation with South Africa and the consequent uptake of a Kiwi or New Zealander identity could facilitate the differences in the pronunciations observed between the Afrikaans speakers in South Africa and those in New Zealand. Changing the way in which they talk might indicate their willingness to invest and to acculturate to their New Zealand home. This contrasts with the SAENZ group who appear to have resisted the transition to become Kiwi, opting instead to retain their South African identities.

Feelings of safety, and overall security, are important factors in being able to live a happy life and to fulfil what participants might believe to be their future selves (Dörnyei, 2005; 2009). Changes in these sentiments and relocating for the reasons above, require that the future self be adapted to suit the new future and opportunities that the participants in New Zealand must consider (1995b, 1997). The new self might very well
benefit more in the long term by acculturating more in New Zealand and this in turn may increase the desire even further to identify as a Kiwi or New Zealander.

8.1.2 Politics and Economy

Politics and economy were the most commonly discussed reasons for moving for the ASA participants (n = 10), the second most discussed for the SAENZ participants (n = 6) and the third most discussed for the ANZ participants (n = 5).

The ASA cohort had the most to discuss about the politics and economy of South Africa, likely because they are still invested in the future of South Africa and the fate of their people (Ashforth & Mael, 1989). The participants in the ASA cohort still reside day-to-day in South African politics and the consequences of government decisions, while the participants in the SAENZ and ANZ cohorts might only get their updates on South Africa through the internet or second-hand through social networks. This viewpoint is identified by FSAENZ5 who said:

FSAENZ5: ... I think a lot of people who are not keeping up with South African news and politics don’t always realise how fractured society actually is and how long it’s going to take.

Many of the ASA participants and one ANZ participant mentioned the current economic downturn and sinking value of the South African Rand as problems of the economy, often linking this to the corruption at government level.

MASA2: The political environment which is a bit unstable … and yeah, maybe also the economy, that is not so stable. Economy is taking a bit of a dive. Those are definitely cons.
FASA4: … it’s also a bit demoralising living in a place where your currency gets weaker and weaker all the time.

FASA1: They [the government] closed colleges, all the police colleges; nursing colleges … they’ve run down the hospitals to bankruptcy.

MANZ2: It is the politics and the fact that, yeah, it [South Africa] is a violent country.

It can be seen from the statements taken from the interviews that the participants do not feel satisfied with the government and various policies which have been enacted by the ANC government since the democratic elections in 1994. However, they have chosen to stay for other reasons such as the beautiful landscape or the fact that their family is still based in South Africa. Dissatisfaction with the government and the decrease in status of the Afrikaans language and culture (mentioned by FASA1) are other reasons that Afrikaans-speaking South Africans emigrate (V de Klerk & Barkhuizen, 2004; P. Smith, 2001; Winbush & Selby, 2015). However, in spite of their disappointment with the current government, the participants of the ASA cohort remain in the country and their strong investment in South Africa is illustrated by values as exemplified in the following example:

FASA1: No. No. I have not considered relocation. Ever … This is my home. This is my family. This is my everything.

These negative feelings are not shared by the SAENZ and ANZ participants about the New Zealand government. Observations about the government of New Zealand were always positive, citing the transparency of the government as a nice change.

FSAENZ4: There’s a transparency, too, in New Zealand.
FSAENZ3: The social services are good. The people are looked after. At the same time, it’s abused. I think there’s so many, bludgers? It’s not a word that South Africans know, you know? Because there is nothing to bludge on to.

MANZ4: I think the country is well-organised; well-run politically. We could always do better but I think we are quite blessed with good civil servants.

According to the concept of ethnolinguistic vitality (Giles et al., 1977; Gogonas & Michail, 2015), institutional support is an important factor in the maintenance of a language and culture. In South Africa, there are still public institutions, such as government offices, churches and educational institutions, which offer services in Afrikaans (although English has effectively replaced Afrikaans in all forms of paperwork, etc. as mentioned by FASA6 after her interview), and this supports the Afrikaans speech community in South Africa.

In New Zealand, there are few public institutions, except for some churches in the North Island, which use Afrikaans as the medium of communication, and this would lessen the already weak support for the Afrikaans speech community in New Zealand. Obviously, this does not affect the participants of the SAENZ cohort in the same way as those in the ANZ cohort, as English is their L1. On one hand, a lack of institutional support might erode Afrikaans in the Afrikaans speech community in New Zealand post-relocation. On the other hand, a positive attitude towards the current institutions, using English as the medium of communication, might very well influence their identity, which might affect their English L2 pronunciation over time, leading to an approximation of an L1 accent. The issue of institutional support is further evident in the comments of several participants from the SAENZ cohorts and ANZ cohorts on the healthcare systems of New Zealand and South Africa.

FANZ1: You’ve got great medical care here [in New Zealand].

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FSAENZ4: So, yeah, from health care I’m sure it’s lovely if you don’t have private health insurance. You do get looked after. You just maybe have to wait a bit more, but you will be looked after. In South Africa, you won’t be looked after if you don’t have health insurance.

MSAENZ3: (about NZ) I have national pride in … in terms of our, even deeper in terms of our healthcare system. All the people moan and groan about it. It’s about the best in the world, you know?

MANZ2: The ACC\textsuperscript{18}… it’s a government and they pay for the stuff like that … The health system over here is really good, I think. I think the policies and everything around it is really good.

Interestingly, despite the fact that the SAENZ participants have positive perceptions about New Zealand and several have negative ones about South Africa, they have maintained their South African identities and often their SAE accents. This could be in response to the lack of need to change their SAE accent as they are easily understood by NZE speakers and other English speakers in New Zealand. Their maintenance of their South Africa identities may stem from some positive feelings towards South Africa and residual investment in South Africa, or the lack of a need to reconsider their self-identity post-relocation as there has never been a strong, cohesive cultural group identity for white English-speaking South Africans (Foley, 1991; Sennett & Foster, 1996).

Participant FSAENZ5 mentioned that the work-life balance in New Zealand was much better than it was in South Africa, even though, as described by MANZ2, this balance and security in New Zealand comes at a cost.

\footnote{\textsuperscript{18} Accident Compensation Corporation}
FSAENZ5: I find that I have more time to have quality time and I don’t feel like I’m constantly chasing my tail. There’s certainly more of a work-life balance here and that’s been really good.

MANZ2: It’s very expensive [in New Zealand] – living costs, living-wise. Food and housing and stuff like that. It’s very expensive compared to South Africa. I think in certain places in South Africa you can still have the quality of life that you have over here but again, that risk is high for getting burgled, getting shot, getting whatever…

This section considered the political and economic factors which the participants identified in their interviews as possible reasons for relocating from South Africa to New Zealand, and discussed how this may influence their decisions concerning their self-identity and, consequently, their pronunciation of English (especially that of the participants in the ANZ cohort). The main implication from this section is that, perhaps, negative perceptions of the state of the South African economy and political system might influence the decisions of participants from the SAENZ and ANZ cohorts towards investing in their new country, facilitating a shift in identity. The factor of institutional support, a part of ethnolinguistic vitality theory (Giles et al., 1977; Husband & Khan, 1982; Jaspal & Sitaridou, 2013), was suggested to influence the identities of the ANZ participants as many have positive perceptions of NZ institutions. These English medium institutions, while possibly weakening the Afrikaans speech community in New Zealand, might strengthen the ANZ participants’ investment in their new future in the country. This relates to Norton’s (1997) concept of identity, because the past experiences of the ANZ participants with the political and economic situation in South Africa, combined with their current and possible future experiences of these same systems in New Zealand, might influence how they identify as individuals and how they place themselves within group contexts in New Zealand (Firth & Wagner, 2007; Hogg & Abrams, 2002), which could ultimately affect their
pronunciation of English. In contrast, the white English-speaking South Africans in the SAENZ cohort probably had no strong group cultural identity in South Africa (Foley, 1991; Sennett & Foster, 1996), and perhaps have found no need to replace it with a Kiwi cultural identity, or to replace their SAE dialect.
The next themes identified were the feeling of discrimination and resulting lack of opportunities in South Africa. This affects both work and education pathways. This theme was often linked inextricably with discrimination as some speakers found their identities or ethnicities contributed towards losses in opportunity. Only two participants mentioned discrimination outright, however, this can again be linked to a perceived loss of opportunity. There were also comments which showed the resilience of the ASA participants to their current situations. They understand that they can still achieve in South Africa and became who or what they desire. They have choice and opportunities to enrich themselves, and thus they are still invested in their futures in South Africa. Opportunities within a country, or the lack thereof, can become push factors leading to relocation (which might have contributed to the ANZ participants’ decisions to move). Although the ASA participants have not left South Africa and proudly maintain their Afrikaans and South African identities, their responses and comments are used as a base upon which to compare the responses by the ANZ cohort.

Many comments refer to discrimination and the government policy of Affirmative Action, or Black Economic Empowerment (BEE) - a policy which seeks to increase the numbers of black Africans, and other minority groups such as Coloureds, Indians and women, in the workplace. These comments resounded throughout the ASA, SAENZ, and ANZ cohorts.

**MASA2:** It’s definitely a disadvantage to be a White South African, especially in the age group that I am in because of job … So you are discriminated against. Definitely.

**FASA1:** The Afrikaners are again pushed onto the backburner again by the ANC (African National Congress) politicians.
FSAENZ5: ... there’s the race and the class divide that’s very stark now but largely those things overlap. But yeah, I mean in terms of racial discrimination, it’s still very rife in the South African context.

While admitting the difficulties above, one participant mentioned that you can still achieve success in South Africa, but it is more difficult in the current environment under the BEE policy. Working in the government, furthermore, is almost impossible for White people. This opinion is followed by MANZ1’s comparison to the opportunity provided in New Zealand, regardless of race or colour.

FASA3: So, for me, as I said, you can still do what you want, you can still achieve what you want; just can’t as White person get a job in the government anymore because they everywhere they advertise … they just say it’s for Black people only.

MANZ1: There is much more opportunity to be everything; to reach your full potential and not have that stopped because you might be Black or White or … somebody else getting a better opportunity because they are Black.

The comment from FASA3 above shows that even though the situation may be difficult in South Africa, people can still make the most of everything if they work hard, presumably. It could be that these participants, who still identify as Afrikaners, while struggling with discrimination, understand that they can still make something of themselves in the country and so, have been able to remain invested their identity (and consequently their AfrE dialect) (Norton, 1997). Furthermore, the Afrikaans speech community is still strong in South Africa, contributing to the desire of those individuals within the community to remain. Institutional support (Husband & Khan, 1982) is still relatively strong in South Africa, and the Afrikaans speech community retains its traditional territory (Giles et al., 1977, 1976). However, even though the Afrikaans speech community maintains its ethnolinguistic vitality in South Africa, the following
comment from FASA1 indicates the rising difficulty Afrikaans L1 speakers now face finding employment. She illustrates the apparent connection between discrimination, being L1 Afrikaans-speaking and loss of opportunity.

FASA1: In South Africa at the moment, if you’re Afrikaans-speaking, you don’t find a job because the commerce has become English in South Africa.

These comments are noteworthy because even though the participants state that there are fewer opportunities for Afrikaans speakers and those with Afrikaans accents, they have not approximated toward an SAE accent. AfrE is still very much different from SAE (Watermeyer, 1996) and these participants, who are quite fluent bilinguals, appear to have a resilience to maintain their Afrikaans accent. This could be related to their identity, or in their antipathy towards English speakers and the development of South Africa towards unofficial English dominance (Sweetnam Evans, 2015). It is important to identify these feelings in the ASA cohort, as it is likely with this same sentiment that the participants in the ANZ cohort move to New Zealand.

Opportunities related to education in South Africa and New Zealand were also an important consideration for the participants in all three cohorts. Interestingly, most participants discussing the difficulties of education in South Africa link it to racial discrimination. In their interview, FASA7 and FASA8 describe the difficulties of getting into university in South Africa if a student is Afrikaans-speaking.

FASA7: Like, if you’re going to some university, they’re going to pick someone else who’s English-speaking and …

FASA8: Mostly, probably Black.

FASA7: Probably Black before they pick you …
These opinions were qualified by FASA7 who explained that she felt Afrikaans was seen as a dying language because all of the colleges and universities have changed the language of learning to English, and in doing so, have given priority to English-speaking students or “someone who had English over an Afrikaans person” (FASA7). This sentiment is reflected in the study on Andalusian Spanish speakers in Spain (Jaspal & Sitaridou, 2013). A speech community draws its vitality from the emotions and feelings of worth in its speakers and this is directly related to the amount of L1 its speakers use (Bourhis et al., 1981). These comments, once again, show the feelings of discrimination and resentment against Afrikaans speakers in perceived preference for speakers of a variety of SAE, including Blacks who regard themselves as English-speaking (Sweetnam Evans, 2015). Black South Africans have wanted English as the lingua franca since apartheid times, and are considered by some to be given opportunities above and beyond those of Afrikaans speakers. This sentiment is felt within the SAENZ and ANZ cohorts as well, for example:

FSAENZ4: From an education point of view now in South Africa, it’s very difficult if you’re White. Very difficult to get in; and if you’re a white male, it’s very … you’ve got to be so clever and so smart and have such good grades.

FANZ2: Yeah, it’s difficult to get into special courses, like, if you want to go study medicine or veterinary, you know? They’ve got their quota system so I think it would be hard.

These feelings contrast strongly against those of the SAENZ and ANZ cohort about the educational system in New Zealand. FSAENZ4 makes a direct comparison between South Africa and New Zealand, while others expressed positive opinions of the NZ education system.
FSAENZ4: So you’ve got far more opportunities for education here if you’re average. If you’re average in South Africa, you’re not going to get into university if you’re White. In New Zealand, if you’re average, you can still go to university and make something of yourself.

MANZ2: But yeah, being able to study, you know? Have a good choice [in New Zealand] … I feel that the standard of education is still really high.

FANZ1: … the education is better here. Tertiary education here, particularly.

The comments above illustrate the participants’ positive and negative perceptions of education in New Zealand and South Africa. The ANZ participants describe their past experiences or possibilities (fewer opportunities for education in South Africa) and their present and future possibilities in New Zealand (better education). These possibilities are used in the construction of the participants’ identities (Norton, 1997) as they position themselves within their new context in New Zealand. Their futures are not the same as they were, and therefore, it could be assumed that they are not the same people as they were in South Africa. Better opportunities for education, in English, and access to better cultural capital (Bourdieu, 1977), all influence the participants’ decision to assimilation or acculturate (Galetcaia, 2014; Lybeck, 2002) and whether they accept that their futures have changed and, therefore, their identities may change over time to accommodate these new factors. Norton’s (Norton, 1995b; Norton & Toohey, 2011) concept of investment can also be applied to the decisions of the participants who have relocated to New Zealand, as better education for their children (or themselves, perhaps) can provide motivation to remain in the country and acculturate towards the NZ culture and dialect.

FANZ1: The opportunities are so much more [in New Zealand] than in South Africa.
MANZ1: *Were you in South Africa, you would not have achieved what you have achieved.*

These last two comments reiterate the overall implication that the participants feel like there is more opportunity to grow, become educated or employed in New Zealand. This all relates back to the question of “what can I do?” which ultimately influences the answer to the personal question, “who am I?” (Bourdieu, 1991; Norton & Toohey, 2011). The next section will look at the consequences that participants in the cohorts felt after moving to New Zealand.

### 8.2 Qualitative – Consequences of Moving

This section looks at the statements and observations made by the participants in relation to how they have felt post-relocation. This section includes answers to the question “have you ever experienced discrimination or impartiality due to accent or identity?” Participants’ observations and opinions are organised into four common themes: discrimination, isolation and displacement, loss of roots, and family. The discrimination in this section differs from that above as it looks at the discrimination the participants had to deal with post-relocation and not as a push factor to leave South Africa. As the ASA participants have not relocated to NZ, their responses come from elaborations on the question “have you ever considered relocating?”
This section attempts to link the feelings of loss to a change in identity, and possible motivation to change to an English accent, as the Afrikaans identity, forged through loss and struggle throughout its history (Louw, 2004b), is possibly fragile post-relocation. This section also relates to continuing L1 use and exposure to L2 as a loss of family can subsequently reduce opportunities to communicate in Afrikaans post-relocation. This could be another possible factor in the difference in pronunciation observed between the ANZ and ASA cohorts. A reduction in the opportunities to use the L1 generally entails that the L2 is used more and the influence of the phonological system of the L1 is reduced (Flege et al., 1997).

### 8.2.1 Discrimination

The most commonly raised issue by both the SAENZ cohort and the ANZ cohort was discrimination. This discrimination was in regards to either accent or identity which were perceived as racist, with connections often made to apartheid (or the history thereof). Feeling discrimination upon moving to a new country could make it more difficult to integrate with the culture there. In this case, these SAE and AfrE speakers were being discriminated against by New Zealanders because of their South African heritage. The result of such experiences could go one of two ways: the SAENZ participants, who with their possible lack of previous cohesive identity (Sennett &

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<table>
<thead>
<tr>
<th>Theme</th>
<th>Isolation &amp; Displacement</th>
<th>Discrimination</th>
<th>Loss of Roots</th>
<th>Loss of Family</th>
</tr>
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<td>SAENZ</td>
<td>0</td>
<td>63</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

Table 77 Themes by cohort showing proportion of participants
possibly expected less culture shock and more acceptance, might resist becoming Kiwi in their identities and fortify their South African-ness through the collection of South African mementos to deal with homesickness (Philipp & Ho, 2010) as well as maintain their SAE accent. In contrast, the participants of the ANZ cohort might embrace becoming Kiwi in order to avoid discrimination for their history and being labelled an ‘out group’ (Stets & Burke, 2000; Tajfel & Turner, 2004). This historical connection to apartheid was apparent in their comments about discrimination at the hands of New Zealanders, regardless of whether they were Afrikaans or English L1.

FSAENZ1: I’ve had a few people who’ve been pretty negative because of apartheid being such a part of South Africa and they judge you on that basis.

FANZ3: But the thing is they made assumptions because I’m White and Afrikaans that I’m necessarily, therefore, a racist.

FSAENZ4: Massey University had a satellite campus and for the first time ever, at teacher’s college with other students, I got accused of being racist based solely on the fact that I was South African … So that’s the only time really that I, you know, got sort of given this label that you’re a racist because I was a White South African.

FANZ1: Obviously with the accent they make the connection: I’m a White South African and so I’m racist.

FSAENZ3: Well, I know from my students that a lot of people when they hear South Africa, they think you’re a racist, you know?

The participants above, all female, experienced a similar sort of discrimination based on their race, connection to South Africa and their appearance. In contrast, it appears that the male participants have not experienced the same discrimination, or they did not mention it in the interviews.
MANZ1: No, I haven’t. I don’t think anybody’s ever not given me an opportunity because of my heritage being South Africa. I think quite the opposite.

MANZ2: I haven’t felt discriminated against in any way.

MANZ3: So maybe some discrimination because of my speech, per se, but not because I’m South African. That’s the way I perceived it.

MANZ4: No, people will notice your accent and say you’re South African but, I mean, there are so many accents around. No, I don’t find that negative and no one has discriminated against me.

Those participants who did experience some sort of discrimination often assumed it was because of the connotations associated with the history of South Africa and apartheid. The Afrikaans identity was promoted by the NP government during the years of Afrikaner rule (O’Meara, 1983). The international media reported negatively on the segregation within South Africa, and in April of 1960 the UN took on a sharply negative stance after the massacre of Sharpville (Audie, 1999) which received a lot of media coverage in New Zealand. This is the source of the discrimination – for a lot of New Zealanders, South Africa (especially Afrikaners), and apartheid are inextricably entwined. It may be that this discrimination facilitates identity change in the participants of the ANZ cohort as the participants find it easier to acculturate and be accepted (see comment by FANZ2 in 8.3) than remain in the minority, suffering for something they might not have believed in or supported.

Discrimination affects an individual to the core, more so when it targets the person’s identity. These participants may have been the victims of defamatory remarks made by New Zealanders in attempts by the offenders to distance themselves from South Africa and its history of racism, by creating an out group situation (Bucholtz &
Hall, 2004; Tajfel & Turner, 2004). In the post-relocation context, the participants of the ANZ may already be struggling with their self-identity through the impact of culture shock (Philipp & Ho, 2010; Winbush & Selby, 2015), and reeling at the loss of the Afrikaans speech community in South Africa which had supported their identity and their language (Barkhuizen & de Klerk, 2006; Barkhuizen & Knoch, 2005). These individuals may strive, in an attempt to anchor their struggling self-identities, to acculturate to the New Zealand identity and accept all things Kiwi, especially in the face of discrimination and overt lessening of their self-worth. The participants of the ANZ cohort may accept Kiwi identities in order to reduce the positive distinctiveness (Tajfel, 1979) between the ANZ individuals and New Zealanders, to provide a more solid base upon which to relate to New Zealanders and grow their self-worth (Noels et al., 1996). Approximating towards an L1 NZE dialect would facilitate the achievement of these goals, should the participants have them.
8.2.2 Loss of Roots

The second-most discussed theme by the participants was that of a loss of roots. This entails the loss of culture, language or history related to their connection to South Africa. The choice of words used by the participants in this section indicated how the participants identified with South Africa, New Zealand and the cultures of each country. Word choices such as *my country, my language, my traditions, we* and *they* all indicate sentiment towards a topic, and inclusion in or exclusion from a social group. In the following remarks, certain words have been underlined which assist in portraying the feelings behind the statements. Some examples from the cohorts are:

FASA1: *No. No. I have not considered relocation. Ever ... This is my home. This is my family. This is my [everything].*

These simple statements illustrate a connection to the country more than family itself can provide. The use of the word ‘home’ signifies a link to the land and to the Afrikaans identity which is so strongly linked to the land and the state of South Africa (Mathieson & Atwell, 1998). To the Afrikaner, the country of South Africa and the Afrikaans identity are inextricably bound together. This connection could be strong enough for this participant to remain in South Africa, even in an environment that is perceived by FASA1 to be against Afrikaans-speakers, as described in the previous section.

FASA4: *Being able to just be. Being able to speak my language and have people understand me.*

FSAENZ2 (speaking about South Africans): *They’ve got like, like, really deep vibrant culture.*
FANZ1: What I do miss about South Africa is the people, the vibrancy; it’s just something very different. It’s not that I dislike New Zealand but South Africa is my home country. I hanker sometimes for the people, the mannerisms, and the smell of the air … not the smog!

These are important because even though it has been suggested that Afrikaans speakers experience a strong degree of culture shock post-relocation, the comments here illustrate that the English-speaking (Anglophone) South Africans also experience some form of culture shock, despite the advantage having English as an L1 provides. Culture shock can make it difficult to integrate into a new setting and the longing for roots and the cultural vibrancy in South Africa that is harboured by the participants can hinder a change in identity.

FSAENZ1: … going through the whole thing of moving country and losing all your roots and having to start from scratch again; it threw me a bit.

The following participant mentions the similarities between New Zealand and what they left behind in South Africa. Similarities can make the transition between the two countries easier to cope with over time. This was seen in a study by (Philipp & Ho, 2010) who found that South African migrants often had a lot of South African mementos which made them feel more at home and these made the transition easier. It was a coping strategy to deal with the culture shock which the migrants may have underestimated (Winbush & Selby, 2015). The following comment by MSAENZ2 highlights that it is often for the better lifestyle (with regards to safety, etc.) that migrants relocate to New Zealand (Poot, 1993), or in this case, similar lifestyles. This suggests that, for this particular participant (and his wife), the similar lifestyles could impede a change in identity because there is no need to change. There is no desire to become Kiwi when their situation, in their eyes, has not changed dramatically.
MSAENZ2 (speaking about similarities of NZ and SA): *New Zealand is very similar in many respects to South Africa. There was an advert we looked at, “braaivleis, rugby, sunny skies and Chevrolet” … and it’s the same here, you know? We love our BBQs. We love our rugby, our sunny skies and the Holden.*

Certain vocabulary can be used to indicate membership within specific social groups (Brewer, 1991; Robins, 1996; Tajfel & Turner, 2004). The use of words like *we* and *my* indicate membership with the South African group, with participants FANZ1 and FASA4 illustrating this. Likewise, the use of *we* by MSAENZ2 indicated affiliation with New Zealand. Furthermore, the use of *they* by FSAENZ2 might suggest a distance now between herself and the South African identity. The next example illustrates a change of terms used within the same observation. As FSAENZ3 describes South Africans in a positive light, her pronoun use changes from *they* to *we*. Perhaps this example illustrates the fluid nature of identity as described by Norton (1997, 2010).

FSAENZ3: *I think a few things that I think South Africans are very good at and that is they’re very hospitable and they’re very friendly … Yeah so, it’s a sort of friendliness and openness to meeting new people that I really like about South Africans. The other thing I like about being a South African, or identifying with South Africans, is the sort of intercultural tolerance that we have nowadays.*

Four ANZ participants identified a longing for the feel of Africa in their interviews as a ramification of relocating. This concept is important to the present study because the Afrikaans identity is one which is strongly connected to the language and the country of South Africa (Du Preez, 1983; Louw-Potgieter & Giles, 1987) and such a loss of secure self-identity is created by relocating from the established Afrikaans community. This could ultimately lead to a move towards being Kiwi in an attempt to create a new, secure identity.
FANZ1: No, but yeah. But that’s what I miss, just the feel. You can probably say the ‘feel’ of South Africa, more than anything else.

FANZ3: And I feel part of that and that’s what I miss is that African … the lack of African-ness here that it’s so… it’s so dead.

MANZ3 noted that he experienced a loss of roots when he taught his classes as he had to be careful to not use too many South African examples. This could possibly be explained as he is focussing on the distance between the two cultures and this may be reflected in his pronunciation and identity.

MANZ3: If I present a class, I often need to be careful of examples I use. So it’s a disadvantage. Because of my background that I will not use too many of those examples in class, yeah.

These comments illustrate that the participants of the SAENZ cohort have positive and negative experiences of both South Africa and New Zealand which may contribute to the observation that the majority of the SAENZ participants do not identify themselves as Kiwi. There has been no requirement for the English speakers to change their language, something that is so crucial to identity (Beebe & Giles, 1984). This factor is important to consider in light of the differences that have been observed between the ASA and ANZ cohorts, as the SAENZ participants do not have to grapple with a growing language ego (Guiora et al., 1972). It is important to remember still that the participants in the SAENZ cohort have left South Africa and a relatively undefined cultural group. This will also influence their future identity post-relocation in New Zealand.

The language ego related to the L2 English that the ANZ participants develop post-relocation will affect their feelings of home and belonging (Stout, 2006; Tavakkoli
et al., 2014). It can also influence a change in the participants’ self-identity (Galetcaia, 2014). These same processes do not affect the SAENZ participants in the same manner precisely because they are not required to communicate in a language that is not their L1. In New Zealand, the ability the participants in the ANZ cohort have in English will determine the amount of, and how quickly they can obtain, cultural capital (Bourdieu, 1977, 1991). As Norton (2011) suggests, individuals such as the ANZ participants will invest in their L2 more, if there is an obvious benefit, such as more opportunities for themselves and their families. All of these concepts combine to influence the identity of the participants in this study according to Norton’s (1997) definition, as all are factors in determining the future of each individual.
8.2.3 Loss of Family

Loss of family was another reason the participants identified as a consequence of moving. Family ties are strong in the South African context as illustrated below, often in response to the question “have you ever considered moving?” Being surrounded by family is an important factor in the maintenance of identity. Many of the ASA participants mentioned their family (and their friends) when they thought about moving.

FASA1: This is my home. This is my family. I’ve never considered leaving.

FASA6: My family and my friends are here in South Africa.

These social networks in the Afrikaans community might reinforce the distinct L2 Afrikaans English accent that these participants possess, as Lybeck (2002) found in her study with L2 speakers, perhaps maintaining connection with members of the L1 speech community works a similar way in retaining an L2 accent. The lack of Afrikaans-speaking relatives in New Zealand is a regret identified by MANZ1 from the ANZ cohort, as he misses the opportunity for his children to grow up with more Afrikaans in their environment. This longing for Afrikaans is common concern among immigrant families from South Africa, especially the parents of children born in New Zealand (see Barkhuizen, 2006; Barkhuizen & Knoch, 2005).

MANZ1: What, now that I have children, what I would have loved is to have had more of my family around. That’s the one thing that I miss, you know, to have Afrikaans-speaking cousins, uncles and aunts around.

Obviously, missing family is not limited to the ANZ cohort. The participants of the SAENZ cohort also identified missing family as a concern about relocating to New
Zealand. FSAENZ3 suggests that the younger an immigrant is, the easier it is for them to adapt to their new country away from family.

MSAENZ1: Yeah, for me, cons probably, not many really but just lack of family support really. We are really the only family here. There’s no one else.

FSAENZ3: I miss my family and actually I think that’s the hardest part about relocating. I think the younger you are, the easier it is.

Other participants from the SAENZ cohort acknowledged that they were comfortable in their new country. One had her partner already living in New Zealand and perhaps more readily accepted her new country because the partner’s preparations had already provided a sense of ‘home’.

FSAENZ5: I’m quite settled here. And again, I think it’s because my partner was here so when I came over, it was already quite settled in a way.

FSAENZ2: I feel comfortable with my adopted country and very sad for what I have had to leave behind and how families have become separated.

Unlike for the participants of the SAENZ cohort, the loss of family for the participants in the ANZ cohort is exacerbated by the reduced opportunities to engage in Afrikaans on a daily basis as time differences and distance make communication more difficult. The result of this change might be a weakening of their AfrE accent and a movement towards the NZE dialect by which they are now surrounded. This reflects the observations of Flege et al. (1997), who suggests there is less influence of the L1 on the L2 if there is less L1 use. This might suggest that the more the L2 is used, and the less the L1 is used, the greater the possibility of accommodation toward the L2 and in this case, towards the local dialect of the L2, i.e. NZE. Over time, this can affect the
pronunciation of the participants in the ANZ cohort and may also affect identity construction, as seen in Norton’s (1995b) case study on Eva.

8.2.4 Isolation and Displacement

Participants in the ANZ cohort identified displacement/isolation when discussing their cons of relocation. These observations reflect the feelings of insecurity concerning relocation and the trials of adapting to a new culture. Developing one’s identity is difficult because it is often done through a site of struggle (Norton, 2010), with conflicting experiences both internally, such as answering questions of “who am I?” and the issue of culture shock, and externally, such as dealing with discrimination from others and learning to navigate a new environment with different social groups.

FANZ3: … I don’t feel safe and grounded here. I actually feel more insecure than I felt in South Africa.

MANZ4: Well, I think sometimes, but that happens anywhere in the world, sometimes recent immigrants always feel a bit left out. Not fully isolated but at least they would become the butt of jokes and so on and sporting rants.

Sometimes it can be physical distance, more so than emotional distance, which can contribute to a feeling of isolation.

MANZ3: I think what’s difficult in Dunedin is the isolation… where to travel it’s not that easy.

As mentioned above in the first quotation, FANZ3 has found it difficult to adapt to New Zealand and has been uncomfortable in the aftermath of the move in regards to feeling ungrounded in her identity. This illustrates the struggle for identity that this
participant is possibly enduring, and is related to culture shock (Winbush & Selby, 2015) and resultant identity vulnerability. This could also be a reaction to the loss of her Afrikaans speech community and the security that the history, networks and institutions gave to her sense of self-identity. It is important to remember here that being Afrikaans is so closely connected to the country of South Africa (Mathieson & Atwell, 1998) and using their language (Du Preez, 1983; Louw-Potgieter & Giles, 1987). Her following remark shows a coping strategy for dealing with social media and concealing her patriotism for South Africa.

FANZ3: So I keep quiet about my loyalties and you can’t express that really, you know? I don’t put things on my Facebook anymore about Africa and look at this and look at that because it’s, like, because I found it to be people don’t like it.

Perhaps the intention of FANZ3’s coping strategy is to reduce the distance between her and the New Zealanders that she now finds herself surrounded by. By downplaying and reducing apparent differences between herself and her new social surroundings, she might be attempting to find common ground with New Zealanders; a common practice in social groups (Bucholtz & Hall, 2004). The participants might still be feeling the destabilising effects of relocation. This participant also spoke about feeling unsettled at work and feeling undervalued. An individual’s sense of self-worth is an important factor in developing a new identity (Noels et al., 1996; Tajfel, 1979) and contributes to how the individual feels about their future opportunities in their new location, and therefore affects their identity (Norton, 1997). Despite the often negative feelings associated with isolation and feeling different, MANZ2 observed that his ethnicity and different culture often became the butt of jokes for his friends, but it was never serious.
MANZ2: Umm, no, I don’t think so. Socially, yes. My friends take the piss out of me all the time and discriminate against South Africans. But that’s just banter.

The following comment illustrates how FANZ2 dealt with the feeling of isolation by acculturating to the New Zealand culture.

FANZ2: Mainly because it is quite lonely if you’re the odd one out and people kind of can’t relate to you and, you know, there’s this whole history that we have that they have got absolutely no knowledge of and can’t understand. So, it’s kind of easier if you’re the small minority to go with the bigger majority.

This statement above suggests several processes may be at play. Firstly, it might be that FANZ2 chose to identify with New Zealanders because it made relocation and settling simpler by reducing the distinctiveness between herself and New Zealanders (Bucholtz & Hall, 2004). Secondly, the loss of her stable Afrikaans speech community in South Africa might entail a loss in the security of her self-identity as connections to the supporting institutions and social groups are severed by distance (Sawicki, 2011). Thirdly, she might have come to the conclusion that her Afrikaans cultural capital was not worth as much in New Zealand, and decided that it might be better to adjust to a new cultural capital (Bourdieu, 1977, 1991; Norton, 1995b), effectively signalling investment in New Zealand, and possibly influencing her English pronunciation as well.

8.3 Qualitative – Identity

This section looks at the self-identification of the participants from the ASA, SAENZ, and the ANZ cohorts. The objective of this section is to provide insights into how speakers describe their personal identity and to determine whether changes have been effected. This section looks at responses to the questions:
1. In terms of identity, how would you define yourself?
2. How do you think you show this identity? Do you show it at all?
3. Have you ever consciously changed your identity to fit in with another group, either for the short- or long-term? If so, could you explain how you went about it?

This section connects the perceptions of the participants’ identities and discusses reasons behind the choice of identity, possible experiences the individuals may have undergone and how these influenced their identities post-relocation according to Norton’s (1997) perspective on identity as discussed in chapter five.

The identities of the Afrikaans-speaking participants (ANZ and ASA) are related to their language egos (Guiora et al., 1972) and their group cultural identity. Afrikaners are deeply connected to the history and the state of South Africa (Mathieson & Atwell, 1998), and their group identity is reinforced by their ability to speak Afrikaans with each other (Du Preez, 1983; Louw-Potgieter & Giles, 1987). Post-relocation, the egos of the participants of the ANZ cohort must change and they are important in SLA, as the stronger their identity connection with the New Zealand culture becomes, the stronger the language ego will become and the more comfortable the speakers will be using their L2 (English). The results of this are increased access to social capital (Bourdieu, 1991), entry into social groups which were once unavailable which provide a more stable platform to redefine one’s self-worth and ethnic identity (Brewer, 1991; Rodriguez & Gurin, 1990). Five identities which were indicated by the participants:

- Afrikaner
- Afrikaans
- (Afrikaans-speaking) South African
- New Zealander
• **Kiwi**

A speaker’s identity is a complex construct that is born from their personal experiences and social surroundings (Joseph, 2004), and migrants’ identities are even more complex as they must consider their future possibilities in the new country as well as construct new identities. This comes as a result of culture shock and the consequent site of struggle (where L2 speakers begin to change their identity in the wake of relocation and identity vulnerability) (1995b, 1997), an influx of new culture, different ways of living and being required to communicate daily in a different language.

<table>
<thead>
<tr>
<th>Afrikaner</th>
<th>Afrikaans</th>
<th>South African(^{19})</th>
<th>New Zealander</th>
<th>Kiwi</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASA</td>
<td>40</td>
<td>10</td>
<td>50</td>
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</tr>
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<tr>
<td>SAENZ</td>
<td>-</td>
<td>-</td>
<td>50</td>
<td>33</td>
</tr>
</tbody>
</table>

Table 78 - Identities by percentage of participants

The table above shows the distribution of self-identities by cohort. Where some participants chose two identities, both were included in order not to limit individual identities.

One participant provided a distinction between being a New Zealander and being Kiwi. This comment provided useful insight on a migrant’s perspective regarding terms that most born and bred New Zealanders would consider synonymous. This explanation is provided in §8.3.3.

This part of the chapter is organised by identities. The first section discusses those participants who identified as Afrikaner or Afrikaans. The next considers those

\(^{19}\) This includes Afrikaans-speaking South African.
participants who identified as South African, followed by those participants who identified as New Zealander or Kiwi.

8.3.1 Afrikaners and Afrikaans

This first part of this section concerns those participants who identified as Afrikaners and considers the connotations that often come attached with the identity. It then follows with those participants who identified as Afrikaans, and suggests reasons behind the separation of the two.

FASA2: Ok. Afrikaans-speaking, very South African … My family is typical Boere. But I am not as much as they are …

FASA5: I’m retired, white, Afrikaans-speaking, mother, grandmother and even a great grandmother within a few months. I can’t define myself in any other way.


FASA3 also identified as an Afrikaner in her interview and still cherished the history of the Afrikaans culture. Each of the participants above was asked if she would call herself an Afrikaner and they answered in the positive.

FASA9: Ja, I’m an Afrikaner, yes.

MANZ2 ran counter to the tendency to identify as Kiwi by his counterparts in the ANZ cohort and was the only participant in the ANZ cohort to identify as an Afrikaner. He stated that the transition to New Zealander is a considerable undertaking and he was not yet ready for it. He elaborated that when the time came for him to apply for a New Zealand passport, only then would he be open to acknowledging that he was becoming a New Zealander.
MANZ2: I would say, obviously South African. Afrikaner. Permanent resident [of New Zealand].

These participants have identified that they have not felt the need to change their identity. While those participants who have never left South Africa are still supported by an Afrikaans speech community, MANZ2 is without support in New Zealand, yet maintains his membership with the Afrikaner cultural group. This illustrates the strength of the membership Afrikaner individuals can feel towards their cultural group, perhaps because of their education during the apartheid regime focussing on Afrikaner pride and dominion (Du Preez, 1983), and through the development of programmes, such as Christian national education, newspapers and broadcast media, during their formative years in South Africa (Cronje, 1945; Du Plooy & Grobler, 2002; Louw, 2004b).

FASA5: I can’t say I change my identity, of course. Does it sound arrogant if I say I am what I am?

FASA9: Ja, I don’t think that for me, it’s a problem to be with English people and so on. But for the younger people, they want to fit in. They don’t want to stand out and be not like the others. But for me, I don’t think it matters so much, no.

MANZ2: I don’t define myself as a New Zealander yet, I would say … I feel I’m still a South African, probably based on passport but I’ve also only been out of the country for 10 years … I also associate myself as an Afrikaner.

Identifying as an Afrikaner is not without baggage. The label is always closely associated with the apartheid regime, and the historic fixed cultural boundaries of “purity” and “tradition” (C. S. Van der Waal, 2012), although these concepts are kept at a distance by most modern day Afrikaners. The several participants offered opinions on the connotations associated with ‘Afrikaner’ and one even going so far as to suggest
that he didn’t actually understand the term. However, as a professor of political science, this was something of a disingenuous comment:

   MANZ4: I wouldn’t call myself Afrikaner. I have never fully understood what that term meant … I’m very much still an Afrikaans speaker but not an Afrikaner. That’s a bit of politically-loaded term.

A school teacher living in South Africa explained the perceived difference in this way:

   MASA2: You know, there’s a difference between being a real Afrikaner and Afrikaans-speaking. Ok, so, a real Afrikaner, you go to Oranje in the Northern Cape where you live as an Afrikaner the way they used to live or whatever and you only speak Afrikaans no matter what.

This is echoed by an Afrikaans-speaking academic researcher currently living in New Zealand, who identifies herself as a Kiwi:

   FANZ2: I don’t. I don’t see myself as an Afrikaner because I think because of the negative association with that. So I see myself rather as an Afrikaans-speaking person, yeah.

FASA1, who lived through apartheid and married and English-speaking South African, explained the reason for this moderation of her Afrikaans identity was a response to the political situation at that time. Her response illustrates the connection between the Afrikaner identity and the apartheid regime.

   FASA1: You just didn’t peddle so hard on the fact that you were Afrikaans. In fact, it was in the apartheid times and you would rather slow down a little bit, you know?

The Afrikaner identity, and essentially the Afrikaans identity, were forged throughout their history through struggles against the Africans already residing in
Africa and the encroaching power of Anglo-cultural imperialism (Louw, 2004b). During the rise and reign of the Nationalist Party in during the apartheid era, the Afrikaans people were brought together under the ideal of *volkseenheid*, which stated that Afrikaners were being discriminated against based on their ethnicity (O’Meara, 1983). Throughout its development, the Afrikaner community established many Afrikaans public institutions which strengthened the speech language community and the Afrikaans cultural group as a whole. This history is carried with the participants who once identified with, or retain membership to, the Afrikaner cultural group.

This socially-constructed ‘imagined community’ (Anderson, 1991), promoted through indoctrinating the Afrikaans children with their history and beliefs, established for the first time a coherent Afrikaner political movement which ensured huge gains in cultural capital (see Bourdieu, 1977) for those Afrikaners with L1 Afrikaans and membership to the group. There was a reason to invest in the Afrikaans language and the Afrikaner identity, as there were future opportunities which had the possibility of providing a better life for families and the Afrikaans culture itself. Looking through the lens of Norton’s (1997) concept of identity, it is no surprise that the Afrikaners developed such a strong affinity with their culture and the Republic of South Africa. Their past struggles against the Anglo-cultural agenda, the rise of the Afrikaner culture and the new future opportunities for those who wished to invest in the language and group, almost ensured country-wide identification with the Afrikaner social group.

This social group has persisted through the fall of the apartheid regime and the subsequent rise of the ANC government and many of its members still remain strongly attached to their identities. However, as described above, some Afrikaans-speaking South Africans do not identify with the Afrikaner identity because of the connotations it brings. This practice of those of identify as South Africans illustrates the concept of social categories (Turner, 1985), and by distancing themselves from the ‘Afrikaner’, they
maximise positive distinctiveness (Tajfel & Turner, 2004). The self-identities of the following Afrikaans participants portray the distinction which has grown between those who are Afrikaners and those who are Afrikaans, although there were only two participants who identified as such.

FASA1 stated that she is Afrikaans. She has a very strong feeling of being Afrikaans and this was evident through the entire interview. She began by identifying as “Afrikaans-speaking”; however, by the end of the interview, she claimed to be Afrikaans.

FASA1: Well, I define myself firstly as being Afrikaans-speaking. Then, if somebody speaks English then I say “ok, let’s speak English.” I’m perfectly comfortable with that especially as I’m married to an English-speaking person and our home language became English after we got married. But if somebody asks me in town, even today, if somebody asks “what are you?” Then I say I’m Afrikaans. So I do define myself as being Afrikaans.

It is interesting, but not uncommon, that FASA1 still feels so strongly about her Afrikaans identity, despite having been married to an English-speaking South African for 56 years, and always speaking English to her husband and four children (and eventually nine grandchildren, and three great grandchildren).

FASA4 maintained that she was both South African and Afrikaans’ and that she was more Afrikaans now having been overseas and embedded in other cultures:


These last two participants provide an identity which has possibly grown out of a distancing from the history and negative associations which follow the label Afrikaner. Perhaps, by identifying as Afrikaans, these participants are able to maintain connection to the history of the early development of the Afrikaner people and the language that is
so important to them (Du Preez, 1983; Louw-Potgieter & Giles, 1987), while also distancing themselves from the apartheid regime and traditional cultural boundaries important to the Afrikaner identity. Once again, looking through the lens of identity that is the focus of this thesis, this Afrikaans identity illustrates a change in individuals as they understand that their future opportunities have changed. Since the fall of the NP in 1994 and the rise of the ANC government in South Africa, individuals who still identify as Afrikaner might have seen their available cultural capital decrease (Bourdieu, 1991) and their future prospects lessen, thus triggering a movement to a new identity which kept the history of the Afrikaans culture and resisted the apartheid regime. Such an identity would still allow membership with the greater Afrikaans speech community, keeping the Afrikaans language alive and maintaining institutions which use Afrikaans as the medium of communication.

8.3.2 South African

This section incorporates the observations about identity from participants who identified as South African or Afrikaans-speaking South African. There were three participants who identified as South African (FSAENZ5, FASA7, FANZ3 and FSAENZ4), one who identified as English-speaking South African (FSAENZ3), and six who identified as Afrikaans-speaking South African (MASA1, MASA2, FASA8, FASA3, FASA6, and MANZ3). There were two participants who identified with two groups, FSAENZ4 identified both as a South African and as a New Zealander, while FASA3 identified as both an Afrikaans-speaking South African and an Afrikaner. The section is organised by South African, followed by the English-speaking South Africans and Afrikaans-speaking South Africans.

The following examples provide observations from participants in all three cohorts identifying as South African.
FSAENZ5: I mean I see myself as South African, female, and a very strong identity as an academic.

FASA7: I’m South African and not so much student. And I work.

FASA8: Can speak Afrikaans, South African, worker.

These participants identify with the country of the South Africa. FANZ3 states this in her interview, however, this example is used later to illustrate a change in identity post-relocation. Each participant has chosen to identify with a broader social group than their counterparts in this section. There are various sociocultural factors which might influence the development of an individual’s self-identity. For the Afrikaans speakers, identifying as South African might be a strategy for maximising positive distinctiveness (Tajfel & Turner, 2004) between themselves, the Afrikaners, and the history of the country, thus separating themselves from members of other groups (Brewer, 1991; Rodriguez & Gurin, 1990). By placing distance between themselves and the Afrikaners, these participants might be trying to increase their access to cultural capital (Bourdieu, 1977; Norton, 2010), or by identifying as South African the participants might be indicating that they accepted the new South Africa (after 1994) and therefore consider the fate of the country and that of other South Africans as their own (Ashforth & Mael, 1989).

An interesting observation about identity change came from FASA8, a white Afrikaans speaker who stated:

FASA8: Soos as ek saam met Gertie hulle is, is ek coloured en as ek saam met jou is, is ek ’n Whitey en saam met iemand anders, is ek iets anders (Like, if I am with Gertie and that (and them), I am coloured and if I am with you, I’m a Whitey and with some others, I’m some others).
This possibly illustrates the point made above by FASA9 in the previous section that younger individuals in South Africa prefer to not stick out and try to fit in with different groups. Identity must be understood as a fluid social construct (Norton, 2010) and it is quite possible for individuals to identify with several social groups at once, especially if there is more cultural capital to be gained than by identifying solely with once group.

Another example of a changing identity comes from FANZ3 who also claimed that she had changed identities post-relocation. Her remarks illustrate the way the Afrikaner children and people were brought up and raised with reference to nationhood (Cronje, 1945; Du Preez, 1983; Louw-Potgieter & Giles, 1987; Louw, 2004b). Her response possibly shows an identity change in reaction to the loss of her Afrikaner community and social group. Once she had left, the connections were more difficult to maintain and she might have seen that maintaining membership to the Afrikaner cultural group was not beneficial for her future opportunities. By identifying as South African, she can retain membership to the overall cultural group of South Africa and the connection to the country she still loves. This is another illustration of how past, present and future interact to produce a new self-identity (Norton, 1997).

FANZ3: That is why my identity changed and I’m aware of this. It was previous Afrikaner; with the nationalism, ideology, with church, language and politics. Like, that’s how we grew up. Then we went away and this changed where I know I am South African. So it changed to a larger group. I’m definitely seeing myself as part of South Africa.

For the English L1 South African, FSAENZ5, there is little change required. As explained in §2.5, there is a relatively undefined English-speaking cultural group in South Africa with little ethnic identity (Sennett & Foster, 1996) who have, more often
than not, defined themselves more in terms of who they are not (e.g. not Afrikaans, not Black) than of who they are (Salusbury & Foster, 2004). Their self-identity is also bolstered through the concept of global belonging (Steyn, 2005). These participants might still retain a link to South Africa, or they have not experienced the crisis related to identity vulnerability (Winbush & Selby, 2015) and linguistic longing (Barkhuizen & Knoch, 2005), they have not felt the need to relinquish their South African identity for a Kiwi one. Therefore, for FSAENZ5, her identity as an academic overpowers any sense of ethnic identity, and thus has no need to change. This thought process might also be reflected in the identity of FSAENZ3:

FSAENZ3: An English-speaking South African who can speak Afrikaans/who speaks Afrikaans.

FSAENZ3 exemplifies a common feature attached to South African identities, the L1. According to Turner (1985), when two social groups are similar, the members begin to add more specific definitions to increase their ability to separate themselves from the ‘other’. This is done among the White South Africans by adding their L1 to their identity, i.e. English-speaking South African or Afrikaans-speaking South African. This separates the English L1 South Africans from the Afrikaans L1 South Africans who have different histories, different first languages and different cultures. This distinction is shown further in the examples from Afrikaans-speaking South Africans below.

FASA6: I’m an Afrikaans-speaking woman and a person that likes to work with people and communicate with people and mix with people. I’m an extrovert …

MASA1: I’m an Afrikaans-speaking person. Not English-speaking … No, no, I’m South African.

MASA2: I’m an Afrikaans-speaking South African.

Perhaps the long-standing hostility between English and Afrikaans speakers remains in part due to their tendency to identify themselves based on their first language, before they identify themselves based on South Africa. The Afrikaans-speaking South Africans’ may choose to distinguish themselves in this way because, regardless of their desire to affiliate with the new South Africa, it may be too much to ignore the animosity they feel towards the past Anglo-imperial cultural agenda (Mathieson & Atwell, 1998; Mesthrie, 2002) or the current decrease in status of Afrikaans. In the specific case of MANZ3, who had been residing in New Zealand for less than a year at the time of the interview, it might be that he simply requires more time before he can fully consider becoming a New Zealander or Kiwi. This might be understood in terms of continuity in the development of ethnic identity (Breakwell, 1986; Erikson, 1968; Lian, 1982) according to which MANZ3 would require more time amongst New Zealanders and the culture before he can become comfortable enough to develop a connection with the New Zealand population.

The Afrikaans language is important in the development of Afrikaans speakers’ identity (Du Preez, 1983; Louw-Potgieter & Giles, 1987). The speakers’ use of, and connection to the language would influence their vision of their future selves and possibly this indicates their investment in their Afrikaans-speaking identity, according to Norton (1997). They have invested in their culture, language and their speech community in South Africa and might wish to display it when they accept membership in the wider South African social group.
8.3.3 New Zealanders and Kiwis

This section incorporates the observations about identity from participants who identified as New Zealander or Kiwi. There were two participants who identified as New Zealander (FSAENZ2, MSAENZ2 and FSAENZ4) and there were five participants who identified as Kiwi (MSAENZ3, FANZ1, FANZ2, MANZ1, and MANZ4). This section will be organised by New Zealander and Kiwi, respectively.

Quite often, for those people who have been born and raised in New Zealand, Kiwi and New Zealander are synonymous, regardless if an individual has not been born in the country. If a migrant wishes to identify with the country and elects to become a New Zealander in heart and spirit, then they are both Kiwi and New Zealander. Contrary to this point of view, both MSAENZ2 and FSAENZ2 provided a distinction between the identities of New Zealander and Kiwi. Perhaps by classifying them separately, as per the theory of social categories (Bucholtz & Hall, 2005; Tajfel & Turner, 2004), these participants can identify with certain parts of New Zealand, but accept that there will always be distance between them and the native population of New Zealand.

MSAENZ2: I wouldn’t typically refer to myself as Kiwi as who and what I am is primarily influenced by my formative years in South Africa. I consider a Kiwi as someone whose roots are in New Zealand, even if not born in New Zealand; I do regard my kids as Kiwis.

FSAENZ2: I consider myself a New Zealander. I am not a Kiwi and I feel the same as MSAENZ2. A Kiwi is someone who has, if not been born here, most certainly attended primary school and has been formed by the ‘Kiwi’ way of life … I was born in South Africa, but I am a New Zealander now and that is my home.
This distinction might have arisen from a space of positive self-esteem. Self-esteem or self-worth is an important factor when individuals are in a situation which requires their identity to adapt (Tajfel, 1979). Perhaps by identifying as New Zealander these participants avoid the instability of the question “How Kiwi am I?” and they secure their new identity with their new country. They have joined the greater social group of New Zealanders, and as such, have accepted a new identity. MSAENZ2 and FSAENZ4 illustrate this point below by pointing out that they do not identify as a South African anymore, although they retain their accent.

MSAENZ2: While I still and probably always will have a South African accent, I don’t really consider myself as an English-speaking South African.

FSAENZ4: No, because I’ll never be a Kiwi here. I wasn’t born and bred and you never assimilate fully. I am a New Zealander. I have a New Zealand passport but the minute I open my mouth, I’m different.

When FSAENZ4 was asked if she considered herself a Kiwi, she answered negatively.

FSAENZ4: No. I’m not a Kiwi

If the distinction between New Zealander and Kiwi is upheld for the following participants, then it could be suggested that they have identified completely with New Zealanders and the culture to which they have relocated. It could also be suggested that, according to Norton’s (1995b) definition of investment, these participants have decided that they will invest more into New Zealand and its culture, and consequently, the language and dialect. Some example observations are given below. MANZ1 and MANZ4 also identified as Kiwi, but have examples elsewhere.
FANZ1: I’m South African. I see myself as South African. I speak Afrikaans. I’m not an Afrikaner and the other thing is that I like to call myself a Safiwi. Because I’m South African and I’m Kiwi now, too.

MSAENZ3: So, English-speaking, Kiwi … ethnically Indian, nationality – like I said, Kiwi … That’s me in a nutshell, really.

FANZ2: I see myself as a Kiwi and obviously my accent hasn’t changed. I thought I spoke like a New Zealander but obviously I don’t. So obviously my accent is still quite marked but I don’t see myself as a South African these days, no.

All of the participants in this section have adapted their self-identity in some way. They have changed from once identifying with specific social groups native to South Africa, to now identifying with new groups from New Zealand. These participants have changed their identity, and by doing such they have acknowledged their acceptance of the group’s fate (New Zealand and their local city) as their own (Ashforth & Mael, 1989). This decision relates to the participants’ investment in the identity and in the country and how their opportunities for gaining cultural capital (Bourdieu, 1991) change in doing so. Investment and commitment to their new country is illustrated in the following statements.

MSAENZ3: New Zealand is my home and I think identifying as Kiwi means that I need to have a conviction to the country and a commitment to the country. I would unequivocally support New Zealand.

MANZ4: Well, I’m a Kiwi of South African birth. That’s how I would define myself. So, I’ve fully identified with New Zealand, support the All Blacks. I decided that, when you move to another country, you must go the Full Monty otherwise it’s not worthwhile. No, in that sense, I still acknowledge my South African roots, of course.
MANZ1: Why I say this is, you know, I love being a Kiwi. I love it. I identified. I take a very real interest in the New Zealand political system, in New Zealand economics, the Dunedin economy. That’s who I am. That’s what I am.

As discussed above in the section on loss of roots, the words that the participants use are an indicator of how they truly feel. FANZ1 indicates herself that she is proud of the ‘Kiwi-isms’ that she now uses, one of which ‘yeah nah’ is given in the following sentence.

FANZ1: I’m also proud that I’ve taken in a lot of Kiwi-isms on board. Obviously, I’ve been here over ten years so I don’t sound like the typical South African but now the South Africans like to say that I sound like a Kiwi but I’m thinking, “yeah nah, you haven’t heard the Kiwis speaking.”

This comment shows that the participant is aware that there is both a shift in pronunciation and a shift in preferred vocabulary. This difference in pronunciation could be related to her change in identity as theorised by the SAT (Beebe & Giles, 1984; Leets et al., 1996), or because she has integrated fully into the New Zealand culture and thus is a high level of acculturation (Schumann, 1978a). This could possibly influence her L2 English phonological system, approximating towards an NZE one.

Responding to prompts about shifts in identity in the New Zealand community, these participants all indicated that they changed their identities for different reasons. However, all of these reasons must reflect Norton’s (1997) notion of identity as the participants’ past lives, their current situations in New Zealand and the opportunities for the future that New Zealand presents for them and their family, culminate in a shift towards being Kiwi.
FANZ1: … I find sometimes it very frustrating because I feel, in a way, I actually feel I have to change my identity, sometimes I feel forced I’ve got to change who I am to be able to do, to just get on as such and yeah.

FANZ2: Yeah, I think I did. Mainly because it is quite lonely if you’re the odd one out and people kind of can’t relate to you and, you know, there’s this whole history that we have that they have got absolutely no knowledge of and can’t understand. So it’s kind of easier if you’re the small minority to go with bigger majority, yeah.

MANZ4: Yes, I think so, yes. Probably wasn’t an immediate decision but after a month, a few months, I decided to go because I think it’s better to identify with where you live. I mean you get all the benefits of this great country so you might as well identify with it.

More ANZ participants identify as Kiwi, with four speakers out of the seven stated they were Kiwi; compared to only one of the SAENZ cohort stating that they had become Kiwi. Most of the ANZ speakers who identified as Kiwi also identified as New Zealander; however, in this situation, choosing to identify as Kiwi could be assumed to be a higher level of acculturation than identifying as New Zealander as it presents a stronger connection (if we take the definition that was provided by MSAENZ2 and FSAENZ2) to the people who are born and raised in New Zealand. It shows a greater connection to the country and everything associated with it, while identifying as a New Zealander can often signify a link via passport and citizenship only, as stated by MANZ2 in the section on Afrikaner. This illustrates a marked difference between the two cohorts based in New Zealand.

In their acceptance of a Kiwi identity over a New Zealander identity, these ANZ participants have acknowledged that their lives have changed. They have acknowledged that their future possibilities (Norton, 1997) are different and that it is beneficial to acculturate (Ashforth & Mael, 1989; Schumann, 1986; van Els et al., 1984).
This integration with the New Zealand culture could have influenced the different pronunciations of L2 English between the participants of the ANZ cohort and the ASA cohort, which aligns with the findings of Lybeck (2002).

Those participants who identify as both Kiwi and as South African, align with the hypothesis of social categories (Turner, 1985) as they can choose to consider themselves as part of several categories depending on ethnic background. The feeling of having two identities is not surprising considering the participants’ years in South Africa. This dual identification may also imply that the participants have two language egos (Galetcaia, 2014; Guiora et al., 1972). The first ego is based on their Afrikaans L1 and the connection to the culture and country of South Africa, and the second, newer ego based on their L2 English and the new environment post-relocation.

The final section considers what opinions and statements the participants of each cohort provided about the changes in their language and the usage of Afrikaans and English in their everyday lives.

**8.4 Qualitative – Change in Language Use**

The final section in this chapter looks at the information and opinions provided about the change of language which has affected the SAENZ and ANZ cohorts post-relocation. This section looks at responses to the question, “Do you feel now that your use of language has changed?” The same question was asked of the ASA cohort in South Africa to compare the ANZ participants.

The intention of this question was to gather insight from the participants’ perspective on the awareness of language in their transition from being South African to becoming a New Zealand/Kiwi, and to triangulate these responses to see if a change
in pronunciation had occurred. The most obvious difference was that, after relocating, participants would have significantly less opportunity to engage in Afrikaans conversation outside of the immediate family, effectively limiting the opportunity to use the L1. Limiting the L1 and increasing the use of the L2 has been found to reduce foreign accent (Flege et al., 1997, 1995; Thompson, 1991) in migrant individuals.

The participants in the ASA cohort were asked about their language change in order to assess whether they felt that they had undergone any changes in their use of Afrikaans as English gains prominence throughout South Africa as the lingua franca of commerce, education, and politics (Barkhuizen, 2002; Probyn, 2001). The intention of this question was to assess whether Afrikaans speakers in South Africa had noticed a change, and if so, did they find that English was taking prominence. The answers provide examples from which to compare the comments from the ANZ participants on their language change in New Zealand. The Afrikaans language experienced a downward trend towards parity with the other official languages in South Africa immediately after the elections of 1994 and the use of English in all domains began to increase (Webb, 2010). In this sense, all Afrikaans speakers have already undergone a change in language to some degree. There is more exposure to English and the other official languages of South Africa (depending on where an individual lives), and this question intended to get the participants’ views on their current language situation in South Africa in order to better understand how open-minded or hostile the ANZ participants in New Zealand might have been to English. The ability to use and communicate in Afrikaans has always been integral to being able to identify as Afrikaans or an Afrikaner (Du Preez, 1983; Louw-Potgieter & Giles, 1987) and the loss of status of the Afrikaans language may have led to a feeling of disempowerment and identity dislocation, as suggested by Louw (2004b).
Since its relegation to parity with the other eleven official languages, Afrikaans has experienced significant loss to English in several domains, especially that of education and commerce (V de Klerk & Bosch, 1998; Probyn, 2001). When the participants of this study were younger there was greater access to, and influence of, Afrikaans in their communities. The previous strength of the Afrikaans speech community in South Africa is seen in the following observations about the Afrikaans language when these participants were growing up. They grew up totally immersed in Afrikaans, with little exposure or access to an English-speaking network; something that would not be so possible today in South Africa. The only place where English was expected to be encountered was during school hours. The following remarks come from participants in the ANZ cohort, which will later demonstrate the change that the Afrikaans speakers in New Zealand have gone through post-relocation.

FANZ3: I didn’t learn English really to speak it until I was starting to work when I was after university because I went to an Afrikaans school, an Afrikaans church, and an Afrikaans university and our circle of friends were only Afrikaans. We didn’t have any English-speaking friends.

MANZ2: Oh yeah, definitely. I mean, back in South Africa, I mainly used Afrikaans. I speak to my family in Afrikaans. Most of my friends were Afrikaans. So, ninety percent of the time, you’ll speak Afrikaans. I mean, the only times you’ll speak English is when you go to the shops and you know they’re English-speaking, yeah.

MANZ4: Afrikaans and English were the two official languages and all school children had to learn them. So I learnt it at school. We didn’t speak English at home, but we learnt it at school.

The above comments illustrate that the participants used to be fully immersed in the Afrikaans speech community when they lived in South Africa. The effects of
membership with this speech community were shown in an anecdote from FANZ3 in the previous section who expressed that she had belonged to the Afrikaner community with all the ideals of nationalism and language. In South Africa, the ethnolinguistic vitality of the Afrikaans speech community remains strong, as seen in maintenance of Afrikaans folk music, Afrikaans literature and grassroots festivals (Alsheh & Elliker, 2015; C. S. Van der Waal & Robins, 2011) as well as the amount of L1 Afrikaans use that is present in South Africa. The following comments from the participants of the ASA community illustrate how their use of Afrikaans has changed in South Africa.

FASA2: Like, maybe when you were younger you used more Afrikaans, now you’re using more English. And then I met lot of English friends and now I probably have more English friends than Afrikaans friends. So, ja, it’s changed a lot.

FASA6: Yes. Using my slang Afrikaans, more mixed Afrikaans, Afrikaans-English mixed. All mixed Afrikaans. More English words than we used to use when we were younger. Ja.

FASA7: Oh ja. Definitely because when I stayed in Cape Town, I had a few English friends so I had to speak English and college was also in English so I changed it a bit. But now that I’m back here, it’s mostly Afrikaans but I can sense that it has changed which is quite good.

These observations illustrate the change in the language these ASA participants have experienced relating to their Afrikaans use. There appears to be more mixing with English-speaking individuals, creating greater exposure to English and possibly resulting in greater use of English words, as observed by FASA6. In the case of FASA2, having more English-speaking friends would increase her access to English social networks and, it might be assumed, she has positive perceptions of these English speakers. Therefore, it might be concluded that her language use is changing to reflect
this, as found in studies such as Lybeck (2002), and van Els et al. (1984). FASA9, an older participant in the ASA cohort who has lived her life in the Northern Cape, also stated that English is encroaching into her working life where once she would have used solely Afrikaans; illustrating change once more, even in areas like the Northern Cape where Afrikaans is still the dominant language and lingua franca.

FASA9: There’s a lot more of that you have to speak English in the business world. Not so much in the Northern Cape but if you go elsewhere you have to speak English and in the bank or in some places. But in my workplace also and if the departments call us, they insist to speak English. So, ja.

This change in South Africa is further reinforced by MASA1 who states that he teaches in English. MASA1 works as lecturer in a university in the Free State where Afrikaans is still the dominant language over English.

MASA1: Ja. I can most in the army and in my subject. I had to use English when I was teaching. I’m so long here for me [as a teacher], going between English and Afrikaans.

Despite the fact that English has gained dominance throughout South Africa as the language of education and commerce (Barkhuizen, 2002; Probyn, 2001), there are still places where Afrikaans remains dominant and English is not used. The way that FASA3 responded to the question shows that, while she once changed her language practices in response to work commitments, she has now reverted back to wholly Afrikaans.

FASA3: At the moment, my work environment just requires Afrikaans, and at home. So that’s all that I speak every day, all day. About six to seven years ago, I worked for English people and when it was only English. The past few years were completely Afrikaans so I have lost a lot of my English.
This is an intriguing response in an environment which is now increasingly using the medium of English, the language of development and progress in South Africa, according to Kamwangamalu (2000).

It is interesting that even though these participants claimed that their language use is changing, the AfrE pronunciation system is still strong. More exposure to the L2 (in this case, SAE English) might be expected to influence the pronunciation of the participants in the ASA cohort. In these situations, the increased use of English and subsequent decrease in the use of Afrikaans can reduce the interference caused by the L1 (Afrikaans) on the phonological system of L2 (English) (Flege et al., 1997, 1999; Thompson, 1991), effectively reducing the second language accent of the speakers. However, in the case of the Afrikaans speakers in South Africa, this does not seem to occur and the L2 accent remains throughout their life. This might be a display of their identities as Afrikaners or Afrikaans-speaking South Africans, as it may be a conscious decision to not change their pronunciation of their AfrE in order to preserve the distinction between them and other identities (Marx, 2002).

The language use of the participants in the ANZ cohort has change considerably compared with that of the participants of the ASA cohort. This is expected as they have relocated to New Zealand where the sounds of NZE resonate through all aspects of life for the majority of New Zealanders. In New Zealand the ethnolinguistic vitality of the Afrikaans speech community is very weak compared to that of the speech community in South Africa. This has several consequences. Firstly, the Afrikaans speakers in NZ, the ANZ cohort, lose the connection to their Afrikaans institutional supports in South Africa; this is an important factor in the maintenance of any speech community around the world (Husband & Khan, 1982; Leets et al., 1996). Secondly, the connection of the Afrikaans identity to the history and state of South Africa is vitally important to the foundation of the Afrikaner and Afrikaans identities (Du Preez, 1983; Mathieson &
Atwell, 1998; C. S. Van der Waal, 2012). Together, these factors culminate in the destabilisation of the ANZ participants’ self-identities. Language is important to Afrikaans speakers, and all of the ANZ participants mentioned a change in their language use, for example:

**FANZ1:** English. All day, every day. Particularly in New Zealand.

**MANZ3:** Well, so, business-wise, socially; when you socialise with people it’s English. The sense of humour changed. All of that. It’s not typical South African humour anymore.

**MANZ4:** Well, we still speak Afrikaans at home. So that hasn’t changed much. But, of course, professional life is all English. So that’s probably the major change. It was fairly smooth, I would say, the transition. I didn’t find it very difficult.

In order to adjust to their new environment and settle their struggle with their identities post-relocation, these participants often change their identities. This was seen in the previous section, where FANZ1, FANZ2, MANZ1 and MANZ4 all identified as Kiwi. Overall, the participants of the ANZ cohort identified more as Kiwi than their English-speaking SAENZ counterparts, who either identified as a New Zealander or maintained their South African identity. Sometimes, Afrikaans speakers who leave South Africa try to maintain their language through various language maintenance strategies (Barkhuizen, 2006; Barkhuizen & Knoch, 2005), but often these practices eventually give way to English, especially if the family change language, as claimed by FANZ2:

**FANZ2:** I think I sort of tried to keep up the culture of speaking Afrikaans, you know, the kids were all bilingual, as well. Yet, yeah no, my husband kind of discouraged me from speaking Afrikaans. I always blame him. It’s easier. But whenever I spoke to him in
Afrikaans, he just answered me back in English so it just became like too much hard work and it was like busy with immigration and it was just easier to integrate into an English-speaking culture.

When asked if she had retained any use of Afrikaans in the home environment, FANZ2 replied that she had “phased it out, really”. A language is difficult to maintain without a speech community with a strong ethnolinguistic vitality, and this loss of further exacerbated by the tendency of children in migrant contexts to more easily adapt to both the language and culture of their new home, as suggested by Michail (2013) and Barkhuizen (2006).

Despite that fact that they have the same L1 as New Zealanders, the participants in the SAENZ group also claim that they have undergone some kind of change in their language use. In the SAENZ cohort, only one participant identified as Kiwi post-relocation. This was MSAENZ3. Two identified as New Zealanders, MSAENZ2 and FSAENZ2, and the rest of the cohort maintained their South African identity. It was also suggested that this lack of change was in part due to the lack of a previous coherent English-speaking South African cultural identity (Sennett & Foster, 1996; Steyn, 2005). The main difference post-relocation was that there was less use of Afrikaans. Most English-speaking South Africans have some skill in Afrikaans, but FSAENZ3, FSAENZ4 are bilingual. FSAENZ3 is a fluent bilingual who identifies as an English-speaking South African. She stated that her use of language had changed in that her use of Afrikaans reduced considerably post-relocation. Where once she would have used both English and Afrikaans in the workplace; now only English remained.

FSAENZ3: Well, yeah, I speak a lot less Afrikaans here, of course. I taught English as a subject and in English. At the Afrikaans university, I taught linguistics. So I taught in
English and in Afrikaans … Yeah. So I would teach the same course in English and then also in Afrikaans in the same week.

The next participant, FSAENZ4, was also at one stage a fluent bilingual having spent five and a half years studying in Afrikaans in Pretoria. That changed when she moved to New Zealand.

FSAENZ4: After five and a half years at Pretoria University, I dreamt in Afrikaans. In my dreams, I did not speak English and there would be times when I almost couldn’t think of the English word. I was fully, fully, fully bilingual… I spoke a lot of Afrikaans in the Free State. Then moving to Richards Bay, I was still fully bilingual but then you move to New Zealand and you don’t speak the language anymore … It’s now very much gone back to a second language.

FSAENZ4 elaborates on an experience of meeting an Afrikaans-speaking friend in New Zealand recently which illustrates the effects of the change in their language use. This might demonstrate the influence of exposure to the L2, as suggested by Derwing et al. (2006). The participants are surrounded and often embedded in the NZE speech community, and this might influence there L2 pronunciation systems, approximating towards the sound system of NZE, or simply pushing a change towards English instead of Afrikaans, even with other Afrikaans speakers, as claimed by FSAENZ4 below:

FSAENZ4: Well, I ran into a girl I knew yesterday when I was having coffee and, of course, we launched into a ‘hello, hoe gaan dit?’ You know? Then we just swapped it to English. But it’s still a really good language to curse in.

There is also change in the lexical system of the English that the participants in the SAENZ and ANZ cohorts use. This includes either using less SAE or Afr words, such as ja or beginning to use more NZE words, such as yeah nah.
FSAENZ5: I would definitely say that I use ‘yeah’ a lot more than ‘ja’, although the occasional ‘ja’ sneaks in.

FANZ1: I’m also proud that I’ve taken in a lot of Kiwi-isms on board. Obviously, I’ve been here over ten years so I don’t sound like the typical South African but now the South Africans like to say that I sound like a Kiwi but I’m thinking, “yeah nah, you haven’t heard the Kiwis speaking.”

Although this thesis focusses on phonological change in the ANZ participants, these claims and examples of lexical change would be an interesting theme for a future study because these types of addition to the interlanguages of the participants are also possible evidence for a change in individuals’ identity. When it comes to social groups, individuals are more likely to adjust their productions to those of their interlocutors, in this case, NZE speakers (Tarone, 2006). This type of change is modelled in the SAT (Beebe & Giles, 1984), which explains that L2 speakers approximate more towards the productions of the speech community they most desire to identify with. Another example of this is the identity change and language change of FANZ1, who identifies as a Kiwi and claimed that South Africans now tell her she sounds like a New Zealander. MSAENZ3 was the only male speaker who responded about language change. He stated that the register that he uses had changed since relocating to New Zealand; becoming more informal in accommodation of the NZE register.

MSAENZ3: Oh definitely. I think the register that I use has certainly changed. South Africans, as you know, are generally straight forward and Kiwis are just lovely people … which means that they are just generally polite people and sometimes, you know, I want to be straight forward but I just can’t because I know it wouldn’t sit well with Kiwis.

This group demonstrates that although they are all L1 speakers of English, they have also experienced some changes to their language use post-relocation. Fewer
opportunities to use Afrikaans and changes in register and lexis were the main differences felt by the speakers in the SAENZ cohort. This could induce some sort of culture shock, as explained by Winbush and Selby (2015), which could affect their pronunciation, even if English is their L1. However, it would appear that the SAENZ participants have not changed their pronunciation which might be related to a resistance to change their identity; as explained above, the SAE cultural group is not that defined or cohesive. This strengthens the hypothesis that the difference in pronunciation observed between the ASA and ANZ cohorts could be related more to the ANZ participants’ change in identity to Kiwi than assuming that it is solely because of their being L2 language users.

Another example of the effect of losing access to the Afrikaans speech community in South Africa is linguistic longing, a sentiment found amongst Afrikaans speakers in New Zealand by Barkhuizen & Knoch (2005). After moving to New Zealand, FANZ3 feels keenly the loss of opportunity to use Afrikaans.

FANZ3: So we do have Afrikaans-speaking friends. I would probably talk to them on a daily basis or two to three times a week and then we’ve got other South African friends that we see sometimes, like once a more or once in two months or three months or so. So yeah, that’s about it. There’s not really other places I speak Afrikaans.

The language ego of this participant had possibly already been influenced by discrimination she said she experienced in the work place, and not being able to fully articulate herself and be comfortable in English might adversely affect her language ego associated with the L2 (Galetcaia, 2014). This would effectively inhibit progress towards a more NZE-like pronunciation and retaining her AfrE pronunciation post-relocation. Another example from FANZ3 regarding the difficulties that she has felt because of her language is that she has felt that she is presumed to be stupid because her control over
English is not that of an L1 speaker. FANZ3 identifies as South African and not as a New Zealander. She was the only ANZ participant to comment about negatively about her language experiences and perhaps this perspective has reduced her inclination to develop a feeling of home and belonging (Stout, 2006; Tavakkoli et al., 2014).

FANZ3: Now here, that’s not the case and it’s hard because people think you’re stupid, you know? They think you’re limited in your capacity and knowledge.

Another factor in the pronunciation of the ANZ participants might be the change in language of their children. Children of migrants often find it easier to adapt to the new speech community both in identity and in language, as suggested by work in migrant settings (Barkhuizen, 2006; Barkhuizen & de Klerk, 2006; Michail, 2013).

MANZ1: I have three children and with them I only speak Afrikaans and they speak predominantly English to me.

This feeling is not restricted to the migrant setting, as evidenced by the claims of MASA2, who also agreed that English was becoming more common in all environments in South Africa; however, he uses both English and Afrikaans with his children. He stated that his children do not want to use Afrikaans although it is the home language.

MASA2: Yes, yes. Otherwise, I send my two children to English schools and we speak both English and Afrikaans at home with them.

MASA2: (When asked if his children spoke fluent Afrikaans) Well, they don’t want to but they can.

FANZ2 was asked whether she still maintained some communication in Afrikaans with her children but replied in the negative. She holds her husband responsible for this loss
of Afrikaans in the home context as described above but now speaks almost no Afrikaans to her immediate family.

FANZ2: We’ve phased it out, really.

MANZ2: A mix of both. I mainly speak Afrikaans to my kids. Main reason for that is that I would like for them to be able to understand and learn Afrikaans.

The comments by FANZ2 show that, initially, there was some sort of effort on her behalf to maintain Afrikaans in the home environment. This illustrates that she was aware of the changes that would occur post relocation, or simply that she wanted to speak her own language. It is common for Afrikaans-speaking parents to attempt to maintain some modicum of Afrikaans with their children (Barkhuizen, 2006), as shown by MANZ2, even though their children tend to adapt to their new English-speaking environment with ease. The ultimate consequence of children eventually changing to English is that it makes it difficult for the Afrikaans-speaking participants to keep it themselves, especially when their English is already relatively strong.

The influence of taking an NZE-speaking partner on language use is another possible factor that might influence the pronunciation of the ANZ participants, namely MANZ1, MANZ2 and FANZ1, who now live with New Zealand partners. This was found to be a significant factor in a study by Drummond (2012).

MANZ1: Right now? I speak English at work. My wife is Kiwi and our language is English between each other.

MANZ2: So I need to speak English when I got to town, to speak almost half the time to my wife. All my friends are English, or most of them. There’s only a fair bit of Afrikaans people you can find in Dunedin.
MANZ1 and MANZ2 both have NZE-speaking Kiwi partners. English has become important in the home context and there are more opportunities to engage in English in a relaxed setting. It might also be the case that English will supplant Afrikaans as the home language eventually for MANZ2, as happened with the majority of the participants in de Klerk’s (2001) study. A Kiwi partner also brings opportunities to become immersed in an English social network, which in turn would improve the L2 English of the participants (Lybeck, 2002). This concept is discussed further in chapter nine.

The following comment from MANZ3 concludes this section and chapter. He explains that the change of language after moving to New Zealand meant a loss of South African humour and that socialising is now all in English, illustrating both a change in language use and a possible shift in identity.

MANZ3: So, that it’s becoming more and more English. After a year, I think eventually we will start to speak English with each other as well, yeah. It’s weird.

He even postulates that after another year, he might start to use English in the home with his Afrikaans-speaking partner, demonstrating the power of constantly living in the L2 speech community (Derwing et al., 2006) without access to the Afrikaans speech community.
8.5 Conclusion

The qualitative analysis sought to identify the participants’ personal observations about their identity and change in language post-relocation. This was compared to those ASA participants who remain in South Africa. This section showed that the majority of the ANZ-speaker considered themselves Kiwi, and the English-speaking SAENZ participants often identified more as New Zealanders or retained their South African identity. The majority of the participants felt that their language use had changed post relocation due to the dominance of English in the New Zealand context and the loss of opportunities to use Afrikaans, especially in the workplace.

All participants in the ANZ and SAENZ cohorts have, in some way, been required to change their language use post-relocation. This is especially significant for the participants in the ANZ cohort who have lost their contact with their Afrikaans speech community in South Africa. It was suggested that the dominance of English in New Zealand, coupled with fewer opportunities to use Afrikaans in their daily lives, might be responsible for this. This increased exposure to the L2 can influence the way in which the participants pronounce their English and the reduction in the opportunity to engage in the L1 results in increased usage of the L2, which also can influence the phonological system of the ANZ participants. It would appear that, overall, this has been the case with the majority of the ANZ participants in this study. The data on the pronunciation suggests that the articulations of most of the consonants of the ANZ cohort are similar to that of the NZE speakers. The data also shows that there are vowels, namely DRESS, START and KIT, have approximated towards the pronunciations of the NZE participants.
The next chapter will combine the quantitative and qualitative analyses and discuss the possible relationship between a change of pronunciation and a change of identity.
Chapter 9

Discussion

9.0 Overview

In this study, data has been collected on the phonological systems of L1 Afrikaans speakers in New Zealand to ascertain whether or not Afrikaans speakers who migrate to New Zealand approximate towards the pronunciation of L1 New Zealand English speakers. The current chapter attempts to link this suggested change in pronunciation to a change in the self-perception of their identities; whether the ANZ participants felt that they had become less South African (Afrikaans-speaking, Afrikaans, or Afrikaner) and more New Zealand-like (New Zealander or Kiwi). The results shown in chapter seven illustrate that the L2 English pronunciation of the ANZ participants was different from that of the participants of the ASA cohort and similar to that of the NZE participants, and that there appears to be a relationship between the identity of the majority of the ANZ participants (Kiwi) and an approximation of the L2 English system towards the realisations of New Zealand English (NZE).

The research questions were:

1. After relocation to New Zealand, does the L2 English pronunciation of Afrikaans speakers approximate towards that of L1 New Zealand English speakers?

2. If there is a difference, what factors might motivate a change in pronunciation?

3. Is the self-identity of the L1 Afrikaans speaker a factor in these differences?
Briefly, the first research question investigates whether the ANZ participants’ L2 English pronunciation is different post-relocation to New Zealand and whether it has approximated towards NZE. The data shows that, for the majority of the sounds analysed, the ANZ participants have a markedly different pronunciation, specifically of the consonants, from their ASA counterparts in South Africa. The consonants show a trend towards approximating towards the realisations of NZE. The analyses of difference between the realisations of the ANZ speakers and the participants of the ASA cohort gave significant results for /h/, /p/, /k/ and syllable-initial /r/. One could thus make the reasonable inference that the pronunciation of the New Zealand Afrikaans speakers had changed.

The second research question is concerned with the factors that motivate a change of pronunciation as discussed by the participants in their interviews. The findings suggest that there is a relationship between changing identity and participants’ perceptions of New Zealand. Many participants have negative views of the economic and political state of South Africa while maintaining that the country (South Africa) is beautiful. All ANZ participants stated that they had experienced discrimination in various environments in New Zealand and some felt the need to acculturate. The relationship between the reasons for leaving South Africa and the participants’ identity post-relocation is also discussed.

Finally, the last research question combines the quantitative results and the qualitative findings to provide insights into whether or not a change in identity affects the speakers’ change in pronunciation. It is thought that the weakening of their connection to the Afrikaans speech community in South Africa and a positive attitude towards identifying as New Zealand or Kiwi facilitate a change in pronunciation by the participants of the ANZ cohort.
Since this study is not longitudinal and presents a short-term view of the L2 English or NZE dialect of the ANZ participants, many of the statements made in this discussion should be read as indications or suggestions that such changes in L2 pronunciation or self-identity might be taking place or might have taken place within the ANZ cohort.

9.1 Discussion

Many Afrikaans speakers in South Africa maintain a markedly fossilised second language accent featuring many elements from their L1 Afrikaans phonological system. So prevalent and distinct is this second language accent that it has for decades been identified as a separate English dialect, Afrikaans English (Lass & Wright, 1986; Watermeyer, 1996). This distinct accent — a remarkable example of the Joseph Conrad/Henry Kissinger phenomenon (Scovel, 1988) — is maintained from childhood (when English is first learned by Afrikaans speakers), into late adulthood, despite the fact that most Afrikaans speakers are exposed to the accents of English L1 speakers on a regular basis (Kamwangamalu, 2002; Probyn, 2001); if not always in person in some rural areas, then certainly via the media. The data from the present study suggests that the participants who have relocated to New Zealand have changed their L2 English pronunciation, since their pronunciation shows a marked difference from that of the Afrikaners in South Africa. Similar results (e.g. Munro et al., 1999) have been found before in migrant settings.

The pronunciation of vowels and consonants by the ANZ participants seems to have changed, when compared to the pronunciation of the ASA participants as demonstrated by a lack of significance ($p = .062$) when compared to the NZE participants’ realisation of /p/. Aspiration of /p/ was clearly present in the speech data of the ANZ participants, as mentioned earlier in chapter three. For example, by increasing
their production of aspirated consonants, it would appear that the ANZ cohort have developed a new phonetic category in their repertoires. Evidence for the possibility of producing new variants of sounds is given by Flege and Eefting (1988), who found that some of their L1 Spanish speakers were able to develop the capacity to produce English \( [p^h] \) in the appropriate environments.

An unusual feature amongst the participants in this cohort is that the ANZ participants appear to have undergone this change to their phonological systems without explicit instruction in pronunciation, unlike the participants in the Flege and Eefting (1988) study. It is noteworthy that, having used fossilized systems for their entire lives in which they would have spoken English with a distinct Afrikaans English dialect, the ANZ participants appear to have changed their accents in NZ as adults. A change in identity may be a contributing factor.

English is a compulsory school subject in South Africa, beginning within the first three to five years of school and continuing until they leave school. Most of the ANZ and ASA participants would have spoken (or continue to speak) English on a daily basis in South Africa (depending on their location - for example, there is less English in the Northern Cape), as well as being exposed to English via the media. Despite this, their Afrikaans English dialect remains fossilised, possibly in response to overt resistance to changing their identity (Marx, 2002), and/or as a way of resisting the encroaching domination of English (Barth, 1998). The ethnolinguistic vitality of the Afrikaans speech community in South Africa is robust enough for individuals to maintain strong connections to the L1 and its use. The L2 accents are therefore maintained (Jaspal & Sitaridou, 2013; Landry & Bourhis, 1997). One marked difference between the South African and New Zealand linguistic environments is that in New Zealand Afrikaans speakers are exposed to even more English than before and have fewer (and sometimes no) opportunities to communicate in Afrikaans on a daily basis.
Prior to 1994, which marked the end of apartheid, the motivation of many Afrikaans speakers to learn English was probably relatively low and restricted to passing English at school in order to gain a school leaving certificate. Afrikaans speakers had little reason to invest (Norton, 1995b) in futures which involved fluency in English or sounding like English speakers if they were able to hold down jobs without that ability, or were able to attend tertiary institutions at which the medium of instruction was entirely Afrikaans. Attitudes towards first language English speakers were often negative and the English language itself was associated with the Anglo-imperialist culture (Du Preez, 1983; Louw-Potgieter, 1988; Sennett & Foster, 1996) and the anti-apartheid liberation struggle, both of which were viewed negatively by Afrikaans speakers who supported the apartheid regime. While some competence in spoken and written English was necessary, the services of translators were easily available, and an Afrikaans accent when speaking English was in some ways a badge of honour and denoted membership to one group (the Afrikaans community) and distance from another (Korf & Malan, 2002; Stets & Burke, 2000; Tajfel & Turner, 2004), that is, the English language community, which was also perceived as being anti-apartheid, anti-government, anti-establishment, pro-Black and often pro-communist. Clearly, many members of the Afrikaans-speaking community had little desire to invest (Norton, 1995b) in efforts that would have them sounding like English speakers.

The comments below illustrate how their language practices have changed post-relocation.

FANZ1: English, all day, every day. Particularly in New Zealand, but in South Africa it was both.
Research question 1.1, namely whether, after relocation to New Zealand, the L2 English pronunciation of L1 Afrikaans speakers is different from that of their South African counterparts, is answered in this study by comparing the pronunciations of the different cohorts and inferring that, if there is a difference, it would have developed after relocation of the ANZ participants. The findings in chapter seven illustrate consonant aspiration in the pronunciation of /p/, /t/ and /k/ by the participants of the ANZ cohort, which was not present in the pronunciation of the ASA cohort and more closely resembled the aspiration in the pronunciation of the NZE cohort. This then addresses research question 1.2 too. Aspiration occurred in 76.6% of all tokens for /p/, 68% for /t/ and 86% for /k/. This contrasts with the aspiration amongst the participants of the ASA cohort, which was less than 20% of the total tokens for each plosive.

Some aspiration was to be expected in the English of the ASA participants, especially with /t/ as this is sometimes (albeit infrequently) aspirated in Afrikaans itself. Results from a study by Wissing and Coetzee (1996) found some aspiration to be present in the pronunciation of initial /t/ in Afrikaans. Earlier studies did not indicate any aspiration for /p/ and /k/ in Afrikaans or the Afrikaans English dialect (Coetzee, 1981b; De Villiers, 1965; Le Roux & Pienaar, 1927; Pienaar, 1930; Pienaar & Hooper, 1941). Although there are other studies on the pronunciation of consonants in Afrikaans (e.g. Donaldson, 1994) or Afrikaans English (e.g. Bowerman, 2008; Watermeyer, 1996), there have, to the knowledge of the researcher, been no recent studies identifying aspirated consonants in Afrikaans.
For some sounds, the English of Afrikaans speakers in New Zealand seems to be in a transitional, developing state. Aspiration of /p/ is present in the speech data of the ANZ participants. There was nearing significance ($p = .062$) between the aspiration of /p/ in the L2 English of the ANZ participants and the NZE participant’s realisation of /p/. The pronunciation of /t/ by the ANZ participants was found to be significantly different ($p = .001$) from the NZE participants’ pronunciation, which indicates that the pronunciation of /t/ is probably not changing as quickly as the pronunciation of /k/ and /p/ are. A reason for the lower proportion of /t/ aspiration (when compared to /p/ and /k/) by the ANZ participants might be the presence of a number of allophones for /t/ in NZE, namely [t], [tʰ], [ɾ], [ʔ] and [tʃ] (Bauer & Warren, 2004; Bayard, 1990; Bell & Kuiper, 2000; Hay et al., 2008). Such variation in the realisation of /t/ in different environments might make it difficult for the ANZ participants to identify where /t/ aspiration should take place and where other allophones of /t/ appear. In contrast, the relative lack of allophones for NZE, /p/ and /k/ compared to /t/ might make it easier for the ANZ participants to copy the aspiration of these consonants as exhibited by NZE speakers.

Realisations of /h/ and /r/ by the participants in the ANZ cohort were similar to that of the NZE speakers, as indicated in statistical analyses. This further answers research question 1.2. Voiced [ɦ] is stereotypical of Afrikaans (Donaldson, 1993), and trilled [ɾ] is used in all environments in which /r/ occurs. These are features of L2 Afrikaans English pronunciation (Bowerman, 2004; Lass, 2002; Watermeyer, 1996), and can be seen in the pronunciation of the majority of the ASA participants in the current study.

Perhaps the phonological similarity (Flege, 1987), and the fact that there is no phonemic differentiation between voiced [ɦ] and voiceless [h] is the reason that many of the ASA participants do not bother attempting to produce a specific L1 sound (in South Africa) when there is no difficulty in comprehension. The same could be suggested for
the realisations of the other consonants produced by the ASA participants. One difference between the participants in the ASA cohort and those in the ANZ cohort is that the ANZ participants are surrounded by a largely monolingual (NZE) speech community. The difference in the pronunciation of the ANZ participants might occur because of exposure to a new L2 speech community rather than to prolonged exposure to the L2 (as suggested by Derwing et al., 2006). It is interesting to observe that, while the participants in the ANZ cohort have changed their articulation of some of their consonants in New Zealand, the same cannot be suggested for those in the ASA cohort who have remained in South Africa. An example of this is the articulation of /h/. The ASA participants are, most likely, exposed to the voiceless [h] of SAE on a daily basis and this should entail some greater degree of articulation of voiceless [h] than exhibited in the data, following the concept of L2 exposure (Derwing et al., 2006). However, they appear not to be concerned with L1-sounding (native-like) English pronunciation in South Africa.

Another reason for the difference might be the loss of opportunity for the ANZ participants to communicate in Afrikaans once they have relocated to New Zealand. As suggested by Flege et al. (1997), an individual who uses less of their L1 will have less transfer of the L1 to their L2 system. This could provide an explanation for the difference in pronunciation between the participants of the ASA and ANZ cohorts, especially in consonants. The ANZ participants often mentioned the loss of communicating in Afrikaans with other Afrikaans speakers, and perhaps the concomitant increase in English use has influenced their realisations of these consonants, approximating them towards the local dialect of their new speech community, NZE.

Another indication for a change in the pronunciation of L2 English in the ANZ participants comes from the vowel analyses. A change is suggested by the data of
DRESS, TRAP, KIT, and START. Figures 18 and 19 illustrate these possible changes graphically, showing that the ANZ participants’ normalised vowel data is often closer in articulation to that of the NZE than to their ASA counterparts. In the case of GOOSE, the ANZ participants’ realisation appeared to remain similar to that of the ASA participants while for LOT, all of the cohorts had similar articulations.

A characteristic of the NZE dialect is the raising of TRAP and DRESS, and the consequential centralisation of KIT (Batterham, 1996; Bell & Kuiper, 2000; Langstrof, 2009; Trudgill et al., 2000). This study found that the DRESS vowel produced by the ANZ participants was articulated similarly to the DRESS vowel of NZE participants rather than like the DRESS vowel of SAENZ, SAESA and ASA participants. It was the only vowel where the F1 and the F2 analyses showed no significant difference between the articulations of the NZE cohort and ANZ cohort (F1: \( p = .254 \); F2: \( p = .441 \)). Of the other two front vowels, KIT was nearing significance to NZE in terms of F2 (\( p = .059 \)), as was TRAP (\( p = .787 \)). This suggests that the KIT sound is in transition towards a more NZE-like pronunciation, in the same way that /p/ is.

In chapters three and seven, the NZE short front vowel shift was discussed and it was suggested that the movement of vowels in NZE was initiated by a raised variant of TRAP (Bauer, 1992; Gordon et al., 2004; Trudgill et al., 1998). Interestingly, the findings from this study indicate a raising and fronting of DRESS in the pronunciations of the ANZ participants, but no significant raising of TRAP. KIT appears to have centralised to a degree in the pronunciation of the ANZ participants, towards that of the NZE speakers. This indicates that, in some respects, the ANZ participants’ pronunciation of L2 English is approximating towards NZE, which further answers research question 1.2.

What appears to be a significant movement of the DRESS vowel by the ANZ participants might indicate that the DRESS vowel is the trigger for the change in the
Afrikaans speakers post-relocation. The DRESS vowel is characteristic of the NZE dialect (Maclagan & Hay, 2007; McKenzie, 2005), and perhaps it is the distinction of this vowel that enables the Afrikaans speakers to raise and front their own DRESS vowel in accommodation, effectively intruding upon the vowel space of KIT – a process similar to that in the equivalence classification hypothesis (Flege, 1987). The consequences of this would be that KIT would have to move, as indicated by the centralising process present in the ANZ pronunciation. In this context, it would be unnecessary for the TRAP vowels of ANZ participants to be raised into the vowel space left vacant by the DRESS vowel. This lack of TRAP-raising in the pronunciation of the ANZ participants is indicated in the findings in chapter seven, and illustrated in Figure 6. A DRESS-initiated chain movement would be a novel approach to analyse L2 English in migrant groups who have relocated to New Zealand, or even in those individuals engaged in NZE SDA.

Apart from the short front vowels, START was the only other vowel produced by the ANZ participants to indicate some change. The centralised realisation of the START vowel in NZE is also a feature compared to the articulation in other English dialects (Bauer et al., 2007; Bell & Kuiper, 2000; Trudgill et al., 2000). The START vowel of SAE and AfrE is also very distinct in its backing and rounding (Bowerman, 2004; Branford, 1994; Lass, 1995). The results in chapter seven suggest that the F1 of the START vowel of the ANZ participants has moved towards a more NZE-like articulation, but the value for the F2 was found to be significantly different from that of NZE speakers. However, Figure 13 shows, shows, that the speakers of the ANZ and SAENZ cohorts front their START vowels, even more than the NZE speakers do. While this may suggest a change in both the pronunciation of the ANZ and SAENZ participants or at least a variation amongst the pronunciation of the SAENZ and SAESA participants, there were not a sufficient number of tokens for this result to be in any way conclusive. However,
preliminary evidence still shows that the START vowel changes post-relocation and this is a possible area for future research.

The findings answering research question 1.2 indicate that DRESS has approximated towards NZE pronunciation, and other vowels (TRAP, KIT and START) are possibly in a transitional stage and might continue to approximate towards NZE pronunciation in the future. The pronunciation of the ANZ GOOSE vowel appears not to have approximated towards that of NZE and the pronunciation of the LOT vowel of the ASA and ANZ cohorts is already similarly close to NZE.

Research question 2, namely if there is a difference, what factors might motivate a change in pronunciation, is firstly answered in this study by comparing the pronunciations of females and males, and inferring that, if there is a difference, it might be a factor in the SDA of the participants. Age and the reversal of the fossilised L2 state are also considered when answering research question 2. Gender was considered as a factor in the articulation of the consonants. Although there were not enough participants to run accurate statistical analyses, certain assumptions might be made (on the basis of existing leaders of change findings, see Cameron, 2003). The data in this study, although limited, indicates that the female ANZ participants have an NZE-like realisation for all the consonants considered. This indication is not entirely unexpected – studies (see El-dali, 2013; Spezzini, 2004; Thompson, 1991) have shown that female second language learners tend to become confident in the TL more quickly and efficiently than male learners do. In fact, the female ANZ participants in this study all indicated their reasons for changing their L2 pronunciation or identity (as is reflected in the findings, chapter eight), which indicate a self-awareness of their linguistic accommodation that was not apparent in the male participants. There were no comments by the male ANZ participants about why they might have changed their pronunciation or made any linguistic accommodations. One male (MANZ4) participant
mentioned that he was aware that his accent was noticed in New Zealand, but made no comment about changing it.

In the articulation of /h/ there was a difference between males and females. This is illustrated by a proportion of 28.8% and 25.67% for voiceless [h] of the total /h/ tokens in the reading for the ASA females and males. In other words, they apparently have little motivation to sound like L1 English speakers in South Africa. When this is compared with a voiceless [h] proportion of 95.67% for ANZ females and 53.75% for males, it seems that the females have changed to a greater degree. This supports the possibility emerging in this study that there might be a greater change in the pronunciation of the female ANZ speakers than there is in the pronunciation of their male counterparts.

An analysis of vowel articulation between genders was problematic because of the numbers of participants in certain groups. However, there is indication that females appear to approximate the most towards NZE realisation for the DRESS vowel; while the males appear to approximate the most for the KIT and GOOSE vowels. The remaining vowels, TRAP, LOT and START, did not indicate a strong pattern either way. Although it is difficult to compare normalised vowel articulations without statistical confirmation, the data can be used to tentatively suggest that change might be occurring. The figures of the normalised vowel data between genders and cohorts in chapter seven indicate that there is some movement occurring. It was apparent that the articulations of the ANZ females were more similar to the articulations of the NZE females than was the case for the ANZ and NZE males, especially for DRESS. The results from chapter seven indicate that females were very close to the raised NZE-speaking females’ articulation of DRESS (z-scores: FANZ F1: -0.494; FNZE F1: -0.471) and produced a more open realisation of KIT when compared to their FASA counterparts (z-scores: FANZ F1: 0.261; FASA F1: 0.404). The MANZ participants’ centralised pronunciation of KIT (z-score: MANZ F2: 0.069; MNZE F2: 0) appears to be
closer to the MNZE participants’ articulations, while LOT and GOOSE are all relatively similar between the respective genders. This suggests that a movement in DRESS might have occurred first, as the MANZ participants produce similar articulations of DRESS to those produced by the MNZE participants. This result, especially considering the F1 movements in the FANZ cohort, reflects tentatively the assertions made in other studies (El-dali, 2013; Spezzini, 2004; Thompson, 1991), that female L2 learners tend to be more accurate in their L2 pronunciation than male L2 learners.

The influence of age in language learning and second dialect acquisition was discussed in chapter five. It is commonly held that the younger a learner is when beginning to learn and gain exposure to their L2, the more native-like their ultimate attainment will be, especially in respect to pronunciation (Abrahamsson & Hyltenstam, 2009; Major, 1994). This situation does not change for immigrants. Johnson and Newport found in their study on immigrants in the United States (1989) that the older immigrants were when they arrived in their new country, the less proficiently they performed in language tests (see Stevens, 2006). However, the situation with the ANZ participants is somewhat different because they began learning English as a second language within the first few years of their schooling, and there was generally a lot of exposure to English throughout their formative years in South Africa (Kamwangamalu, 2002; Probyn, 2001).

The question then is why these ANZ participants appear to change their L2 English pronunciation in the post-relocation context even after years of speaking with an established L2 Afrikaans accent. Aside from identity, which will be discussed later, there appear to be few reasons why an adult L2 English speaker might re-energise his or her fossilised L2 pronunciation system. It is held that adult learners seldom achieve native-like pronunciation (Abrahamsson & Hyltenstam, 2009; Krashen & Seliger, 1975; Scovel, 1981; Selinker, 1972), and the participants in this study certainly have not
achieved native-sounding pronunciation of NZE, yet the results in chapter seven appear to suggest that there are approximations towards NZE articulations, especially of the consonants. An explanation for this might be that the ANZ participants have lost contact with their Afrikaans speech community in South Africa. This has two consequences: firstly, their use of Afrikaans decreases and secondly, their use of English increases. Tarone (1994) and Selinker (1992) believe that fossilisation can be reversed and that learning can begin again. The quantitative results and qualitative findings of this study support this belief and suggest that the ANZ participants have attempted to adjust the articulations of their L2 pronunciation systems to approximate towards those used by their interlocutors (which in this case are speakers of NZE) as in Speech Accommodation Theory (SAT) (Beebe & Giles, 1984; Tarone, 2006).

Research question 3, namely whether the self-identity of the L1 Afrikaans speaker is a factor in the differences in pronunciation between the ASA and ANZ participants, is answered by comparing the self-identities of the ANZ participants with those of the ASA participants and also referencing the lack of change of identity amongst the participants in the SAENZ cohort. There are several factors, such as having an NZE-speaking partner, which might influence both the identity and the L2 pronunciation of the ANZ participants. In this way, this discussion continues to answer research question 2 as well as question 3. As mentioned by Hatoss et al. (2011), some cultures exhibit greater loyalty to their first languages than other cultures do, and this plays a large role in the construction and maintenance of their identities. This is certainly the case for the Afrikaners. The identity of Afrikaners is strong and inextricably bound to the country and their language (Mathieson & Atwell, 1998). Described in chapter five, the Afrikaans identity developed by a strong connection to South Africa, and an opposition to threats such as English imperialism and more recently Africanisation and Afrocentrism (Du Preez, 1983; Louw, 2004c), and through the language which
connected the individuals. It could be said that the very centre of the Afrikaans identity lies with being South African, living in South Africa, and remaining within the established community. This connection can be seen in the comment by FASA1 which is repeated here:

FASA1: No. No. I have not considered relocation. Ever ... This is my home. This is my family. This is my everything.

This simple statement illustrates a connection to the country more than family by itself can provide. The use of the word ‘home’ signifies a link to the land and to the Afrikaans culture which developed and was tempered by the land itself. In contrast, South African English speakers often retain links (however faint), to England, and are members of a relatively disconnected cultural group (Sennett & Foster, 1996), which does not equate identity and first language to the extent that the Afrikaners do. The Afrikaners forfeit most of their symbolic and material resources (Norton, 1995b), which includes their language, when they leave South Africa. This is a significant loss to the ANZ participants because their language is the cornerstone of their robust social identity (Du Preez, 1983; Louw-Potgieter & Giles, 1987). This loss might lead to the participants’ developing identity insecurity and unfamiliarity (Sawicki, 2011), a situation which requires them to adapt to their new context and initiates a gradual identity transformation which leaves the migrants with a strong feeling of identity vulnerability (Hatoss et al., 2011; Winbush & Selby, 2015). In other words, once they relocated to New Zealand, it would have been very difficult for the ANZ participants to keep their membership with the Afrikaans social group in South Africa, essentially weakening their Afrikaans identity and paving the course for it to change towards a new identity more they perceive as being more suitable in their new country.
It is this struggle that the ANZ participants must endure in order to adapt and acculturate to the New Zealand way of life which facilitates the adoption of a new identity. Reflecting Norton Peirce’s belief that identity is a site of struggle (1995b), it is suggested that this vulnerability and the subsequent struggle of identity in the aftermath of relocation facilitate a change in identity towards becoming Kiwi by the participants of the ANZ cohort. Evidence of this change was seen in chapter eight, in which it was mentioned that four of the ANZ participants (FANZ1, FANZ2, MANZ1 and MANZ4) identified as Kiwi. Aside from the feeling of identity vulnerability, other factors such as acculturation to New Zealand culture, attitudes to New Zealand and NZE speakers, and life partners are also important in the development of identity, and might influence the difference in pronunciation of the ANZ participants which appears to be approximating towards that of the NZE speakers.

The loss of the connection to the Afrikaans speech community and social group in South Africa may have destabilised the identity of the ANZ participants after relocation, providing the possibility of a shift in identity towards being more Kiwi. Previously, the ANZ participants had invested in a future that was determined by their membership of the Afrikaans social group and the future opportunities that the Afrikaans language and this membership provided for them (Norton, 1997). The ANZ participants had access to cultural capital through their use of Afrikaans (Bourdieu, 1991; Norton, 2010). However, once in New Zealand, this membership of the Afrikaans speech community would not have provided much benefit for the ANZ participants.

As discussed in chapter two and in chapter eight, some of the participants in the ANZ cohort especially the female participants (FANZ1, FANZ2, FANZ3) experienced some form of discrimination at the hands of New Zealanders. The participants may have chosen to change their identity in response to this in order to reduce the chances of being discriminated against again, for belonging to an out-group (Bucholtz & Hall,
They may have deliberately chosen to start identifying with the in-group in order to maximise the distance and highlight a distinction between them and the South African Afrikaners, especially as the South African Afrikaner social group is so closely associated with the apartheid regime by New Zealanders. FANZ1, FANZ2 and MANZ4 provided evidence in §8.3.3 of their decisions to identify with New Zealanders. Here is the example from FANZ2:

FANZ2: Yeah, I think I did [about identity change]. Mainly because it is quite lonely if you’re the odd one out and people kind of can’t relate to you and, you know, there’s this whole history that we have that they have got absolutely no knowledge of and can’t understand. So it’s kind of easier if you’re the small minority to go with bigger majority, yeah.

This remark by FANZ2 (and those of FANZ1 and MANZ4 in chapter eight) indicates that there was a conscious choice to change identity in New Zealand, and that this change in identity might make their lives in New Zealand easier. This decision suggests that these participants have considered their current situations and their future opportunities as Afrikaans speakers in New Zealand, as per Norton’s (1997) view on identity, and they have chosen to identify as Kiwis.

The findings in chapter eight indicated that more ANZ participants identified as Kiwis than their SAENZ counterparts did. In South Africa, the social groups represented by these two cohorts were completely different. Research has shown that English-speaking South Africans have never been a cohesive, unified social group (Foley, 1991; Sennett & Foster, 1996), and that many English-speaking South Africans actively trace their lineage back to various European ethnic groups, creating a sort of global belonging (Steyn, 2005). It is suggested that this global belonging allows English-speaking South Africans to resist developing the integral links to the history of South
Africa that the Afrikaners have. In stark contrast, the Afrikaans identity is inextricably entwined with the development of their culture in South Africa, to their Afrikaans language and the very land of South Africa (Du Preez, 1983; Louw, 2004b). The history between Afrikaans speakers and English speakers would never normally see an Afrikaans speaker invest in any future that would require mirroring SAE speakers.

It is interesting to consider how the ANZ participants coped with the emotional ramifications of relocating to New Zealand. All immigrants experience some degree of culture shock after arrival to a new country. The ANZ participants are no exception, and regardless of previous research about New Zealand and the colonial past, the differences between South Africa and New Zealand are often underestimated (Winbush & Selby, 2015). While the ANZ participants in this study were diverse and experienced different situations upon moving to New Zealand, all justified their relocations to New Zealand using the third coping strategy suggested by Reyneke (2004). The ANZ and SAENZ participants understood that they were leaving due to increases in crime rates, reductions in the quality of available education, lack of opportunities in the workplace, and other such issues (all previously identified by Smith (2001), while at the same time they were on the whole positive about New Zealand, although living expenses and the loss of family were problems for all. For the ANZ participants, the severing of their connection to the Afrikaans speech community in South Africa was also significant (Barkhuizen & Knoch, 2005). It could be suggested that the ANZ participants use the third coping strategy (seeing the positives and the negatives), to deal with the vulnerability they experience with their self-identity after relocation to New Zealand. This acceptance of pros and cons for their new lives in New Zealand might permit the ANZ participants to more easily adapt to their new lifestyle and, as the findings of this thesis suggest, facilitate a shift in their identity to Kiwi.
This still does not account for why the ANZ participants (and perhaps Afrikaans-speaking migrants to New Zealand generally), should change their pronunciation of English while the English first language speakers generally do not. The Afrikaans speakers in South Africa hold various levels of animosity towards South African English speakers because of the history of hostility between the two speech communities (V de Klerk & Bosch, 1998; Mathieson & Atwell, 1998; Steyn, 2005). This might be a reason why the Afrikaans speakers maintain their Afrikaans identities strongly in South Africa, distancing themselves from their English-speaking counterparts. However, after relocation to New Zealand, those ANZ participants who have accepted a new identity have identified with what is effectively an NZE speech community — an L1 English social group. Perhaps the explanation for this shift might be found using Norton’s (1995) concept of investment. In order for migrants to invest in a new country, a new identity and a new speech community, they need to have the belief that their investment will increase their available cultural capital (Bourdieu, 1991; Norton & Toohey, 2011). Their membership with the new social group also indicates their acceptance of the fates of the group as their own (Ashforth & Mael, 1989). In New Zealand, the ANZ participants have invested in their new country for different reasons. For example, access to benefits like the healthcare system (MANZ4), access to high quality educational institutions (FANZ2, FANZ1), or better employment opportunities (MANZ1). The investment of these ANZ participants is shown in the findings in chapter eight. An example from MANZ1 is:

**MANZ1: I take a very real interest in the New Zealand political system, in New Zealand economics, the Dunedin economy.**

Here, MANZ1’s investment in New Zealand, and especially with the city of Dunedin, is illustrated. MANZ1 has identified with Kiwis. This participant shows his acceptance of the fate of his new Kiwi social group through his activity in the local economy and the
New Zealand political system. The findings suggest that the situations of the other Kiwi ANZ participants might be similar. To sum up, perhaps severing their ties to the Afrikaans community in South Africa creates an identity vulnerability that is strong enough to enable the ANZ speakers to put aside previous animosity towards English speakers in South Africa. It could be suggested that the desire of the ANZ participants to anchor their self-identities pushes them towards identifying more robustly with the New Zealand culture. The findings suggest that identifying as Kiwi is a possible factor in the shift in pronunciation of the ANZ participants. This is discussed below.

There does not appear to be much change in identity amongst the participants in the SAENZ cohort. Amongst the SAENZ, only two participants identified as New Zealanders and only one other identified as Kiwi. One participant (MSAENZ2) held that one could only be “Kiwi” if one was born in New Zealand and did not have roots in another country. Since the individual identifying as a Kiwi was one of the participants of Indian background, it might be the case that he now appreciates being a part of the in-group (the English-speaking New Zealanders – of whom his new pakeha partner is one), rather than part of the out-group that he belonged to in South Africa because of his ethnicity. The individuals in the SAENZ cohort do not seem to have changed their pronunciation, or to have considered a change in identity:

FSAENZ3: *I mean, I’ll always be South African*

Family connections and the opportunities for the future for their children are another reason for the ANZ participants to invest in New Zealand and New Zealand English. Three of the ANZ participants have NZE-speaking partners and speak English to them (FANZ1, MANZ1 and MANZ2). The findings suggest that taking an NZE-speaking partner could have facilitated the difference between the ANZ participants’ L2 English pronunciation and that of their ASA counterparts, and could have assisted the
shift in their self-identity to Kiwi. This finding is similar to those in a study by Drummond (2012).

The participants in the ANZ cohort who have Kiwi partners realised many pronunciations of English close to that of the NZE speakers. For example, FANZ1 had an F1 and F2 value for DRESS of 438Hz and 2288Hz, compared with the average of the female NZE participants of 446Hz and 2348Hz, and MANZ1 had a TRAP F1 and F2 value of 447Hz and 1618Hz, compared to the average NZE male TRAP F1 and F2 of 426Hz and 1562Hz. A possible result of having an NZE-speaking Kiwi partner could be that the relationship facilitates the reduction of distances between the social groups to which the ANZ participants and NZE speakers belong (Hogg & Abrams, 2002; Tajfel & Turner, 2004).

While the findings of Winbush and Selby (2015) suggest that Afrikaans-speaking South African migrants often underestimate the differences between New Zealand and South Africa and thus experience an unexpectedly intense culture shock, meeting a Kiwi partner might facilitate the development of a more positive attitude toward the target culture (in this case, NZE-speaking New Zealanders). A positive attitude of the ANZ participants towards the target speakers and country would facilitate the acquisition of a second dialect as individuals assimilate and acculturate (Tagliamonte & Molfenter, 2007) to the local NZE speech community. Not only does assimilation indicate a willingness to change one’s L2 pronunciation, it also allows for more investment (Norton 1995) in the NZE speech community by those ANZ participants with NZE-speaking partners.

Assimilation with the local NZE speech community allows the ANZ participants to immerse themselves in informal language learning situations. This suggests two facilitators to their acquisition of the NZE dialect: firstly, there is an increase in
accessibility to NZE social networks, and secondly, the ANZ participant is often exposed to more English and less Afrikaans. An NZE-speaking partner opens up new and previously inaccessible social networks, such as provided by new family friends and friends of friends, which increase overall exposure to NZE.

**MANZ2:** *All my friends are English, or most of them.*

As also shown in de Klerk’s (2001) study, the ANZ participants often do not use Afrikaans with their NZE-speaking partners.

**MANZ1:** *My wife is Kiwi and our language is English between each other.*

**MANZ2:** *So I need to speak English … to speak almost half the time to my wife.*

When they join the new and larger social network of a different speech community, individuals often assume a new identity as members of this newly-adopted speech community (Moyer, 1999; Munro et al., 1999). For the ANZ participants, such a situation would provide more opportunities and reasons for altering their L2 English pronunciation to approximate towards that of NZE, (as reflected in Lybeck’s 2002 findings).

Because an NZE-speaking partner brings NZE into the home, the exposure of the ANZ participants to native NZE is increased on a daily basis. This might be a decrease in the use of Afrikaans in the home and surrounding family contexts from what it was previously for the ANZ participants. As in the Derwing et al. (2006) study in the USA, if the ANZ participants use less Afrikaans and more English, then their competence in English is likely to increase. Similar findings (Flege et al., 1997; Munro et al., 1999; Thompson, 1991), suggest that the reduction of either L1 or D1 (first dialect) use can significantly affect the pronunciation of the L2 or D2.
A change in home language to English is mentioned by several participants, including MANZ3, who has an Afrikaans-speaking partner:

MANZ3: So, that it’s becoming more and more English. After a year, I think eventually we will start to speak English with each other as well, yeah. It’s weird.

In this situation, perhaps the loss of connection to the Afrikaans speech community in South Africa makes it difficult to maintain the use of Afrikaans in the home, even with Afrikaans-speaking partners. MANZ3 believes that he and his partner will eventually start to speak English with each other. For the ANZ participants, their motivation to maintain Afrikaans as their first language competes with their motivation to accommodate to New Zealand society using English as the medium of communication. This decision is complicated further by the changing identity that the ANZ participants experience after relocating. As mentioned earlier, some of the ANZ participants indicated that they have shifted their identity towards Kiwi and started affiliating with the NZE speech community, displaying integrative motivation to acculturate with the NZE speech community. Polsky (1969) believes that learning a second language is a key element in acquiring membership of a second second-speech community, and it would seem that a similar relationship might hold between acquiring a second dialect and joining a new speech community. This ties in with Norton’s (1995) concept of investment, as the ANZ participants must be invested in their futures in New Zealand for integration, acculturation and dialect change to occur.

The investment of ANZ participants in New Zealand seems to be affected by having young children. Caring for children and providing them with the best opportunities was found by Norton (see case study of Eva, 1995) to be a factor in overall investment. Children of migrant families often adapt more quickly to the new country, both culturally and linguistically, than their parents do (Michail, 2013). This has been
observed in the Afrikaans-speaking migrant population in New Zealand too (Barkhuizen, 2006). As indicated in qualitative results the future of their children was a significant influence in the decision by participants in both the SAENZ and ANZ cohorts to relocate to New Zealand. Some of the ANZ participants mentioned that their children had resisted speaking Afrikaans with them and responded in English to the Afrikaans spoken to them by their parents:

MANZ1: *I have three children and with them I only speak Afrikaans and they speak predominantly English to me.*

As attested by FANZ2, these Afrikaans-speaking parents in the ANZ cohort often try to maintain some modicum of Afrikaans use with their children. Various language maintenance strategies have been used before by Afrikaans speakers in New Zealand (see Barkhuizen, 2006; Barkhuizen & Knoch, 2005); but it would appear that it is difficult to keep the new (English) language at bay. It seems that, regardless of language maintenance strategies, the use of Afrikaans at home decreases over time for most of the ANZ participants, especially if their children have integrated into the NZE speech community, they have an NZE-speaking partner, or they assume membership of a new social group in New Zealand. These are all important factors in the construction of the ANZ participants’ investment in New Zealand, a shift in identity and an adjustment to their L2 dialect. The factors of children’s influencing the use of a language in the home and shifts from and to different languages by the parents are intertwined with investment (Norton, 1995), identity and dialect change and are not present in the lives of English-speaking migrants to English-speaking countries.

In order to become members of new social groups in the NZE speech community, the ANZ participants need to have positive attitudes towards New Zealand and its NZE speakers. Attitude is an important factor in motivation for language or dialect
change (Dörnyei, 1994b; Gardner & Lambert, 1959; Tremblay & Gardner, 1995), and for assuming membership of a new social group (Aslan, 2014; Moyer, 1999; Murphy, 2014; Tagliamonte & Molfenter, 2007). By being open-minded about (having a positive attitude to) the country to which they have migrated, the participants may be facilitating the development of an identity change. Throughout the interviews most of the ANZ participants mentioned previous negative experiences in South Africa, and contrasted these with current positive situations in NZ. Such attitudes are important in Norton’s (1997) definition of identity, the construction of which is affected by an individual’s past, present and future possibilities. The findings of the present study indicate that the ANZ participants have positive attitudes towards New Zealanders in general. Attitudes towards speakers of the target language have been well studied in second language acquisition and a positive attitude towards the TL speakers often correlates positively with successful SLA (Dörnyei, 2009; Lybeck, 2002; Oller, Hudson, et al., 1977; Schumann, 1986; van Els et al., 1984). Ellis holds that attitude directly affects learning outcomes (Ellis, 1991). The ANZ cohort observed New Zealanders to be relaxed, outdoorsy, hands-on, proud, have a great sense of humour, tough, understated, and adventurous. Many of these attitudes and opinions were positive. Two selected examples from the ANZ participants illustrate this:

FANZ1: But yeah, great sense of humour. You guys have got the best expressions ever … I like that and I like the laidback-ness.

MANZ2: I see Kiwis as very similar to South Africans. They, you know, they’ve got a very relaxed attitude. They also love the outdoors. They love to have a BBQ, you know? Very hands-on people as well.

It is extrapolated here that the positive attitudes towards New Zealand and NZE speakers might have facilitated both a change in identity and pronunciation even
though the L2 had largely been acquired by the ANZ participants already and presented as a fossilised interlanguage (Afrikaans English) upon their relocation to New Zealand. This is illustrated by the shifts in identity of FANZ1, FANZ2, MANZ1 and MANZ4, as well as in the pronunciation of the participants of the ANZ cohort which are different from that of the ASA participants and which approximate towards New Zealand English pronunciations. Specific examples of this were seen dealt with in chapter seven; for example, /p/ and /k/ aspiration, devoicing of /h/, and the use of NZE approximant [ɹ] were significant differences between the pronunciation of the ANZ participants and the ASA participants.

Amongst the participants in the ANZ cohort, there were also negative perceptions of New Zealanders and New Zealand. FANZ3 provided plenty of negative opinions about New Zealand and other ANZ participants mentioned topics such as loss of family and comments related to linguistic longing (Barkhuizen & Knoch, 2005). FANZ3 participant had a difficult time with New Zealanders in the past in relation to work and discrimination and it is suggested that these negative experiences influenced her perceptions of New Zealanders in general. FANZ3’s negative perceptions of NZE speakers and New Zealand combined with her longing her South Africa and the Afrikaans speech community, might have contributed in her resistance to identify as a New Zealander or Kiwi. This also might be why she exhibits the least NZE-like pronunciation of the ANZ participants. For example, her articulation of KIT was closer (412Hz) and more fronted 2252Hz than that of the female NZE speakers (527Hz and 1825Hz), and her START vowel was also articulated closer (526Hz) and with the tongue farther back (1207Hz) than that of the female NZE speakers (750Hz and 1505Hz). FANZ3 also differed from other ANZ participants in with generally lower rates of aspiration for /t/ and /k/, especially compared with her female ANZ counterparts.
The three ANZ participants who did not identify as Kiwi were MANZ2, MANZ3 and FANZ3. FANZ3 and MANZ3 both identified as South African while MANZ2 still identified as Afrikaner. However, MANZ2 indicated that he might be open to eventually identifying as New Zealander or Kiwi:

MANZ2: I don’t define myself as a New Zealander yet, I would say … I’m going to get my citizenship and then I’ll be a New Zealander and that’s when I’m a New Zealander.

MANZ2 generally had positive views of New Zealand healthcare, education and safety. As exemplified above, he also holds New Zealanders in pretty high esteem. Perhaps these views are influenced by his having a NZE-speaking partner. It could be argued that (despite retention of his strong connections to the Afrikaans social community) his positive attitudes about things New Zealand and the fact that he is open to the eventuality that he may acculturate more fully, are indications that he has already started down the path of identity change. MANZ3 had been in New Zealand for only a short period before the interviews were conducted. His lack of identity shift would be expected with such a recent relocation, plus he has an Afrikaans-speaking South African partner (another reason suggested to delay acculturation). The maintenance of his South African identity can be explained by the concept of continuity (Breakwell, 1986; Korf & Malan, 2002; Lian, 1982), which suggests that migrants require a relatively extended period of exposure to the new cultural group in order to feel comfortable enough to consider membership. This would indicate that, with more time, perhaps MANZ3 and MANZ2 might identify as Kiwi, as did some of their other ANZ counterparts.

The generally positive attitudes about New Zealanders appear to contribute towards a change in identity and a change in pronunciation as extrapolated by
comparing the different pronunciations of the ANZ and ASA speakers. This does not appear to apply to the SAENZ participants. As discussed earlier, the fact that the SAENZ participants have come from a relatively undefined social group and language community (Foley, 1991; Sennett & Foster, 1996), and their tendency to hold to the concept of global belonging (Steyn, 2005) seem to enable them to maintain their South African identities, even in the face of feeling vulnerable and experiencing culture shock, as their ANZ counterparts do (Winbush & Selby, 2015).

The findings of the present study suggest a correlation between a change in identity and a change in pronunciation. This is indicated by the difference in L2 English pronunciation between the ANZ cohort (which was generally closer to NZE) and the ASA cohort. Some of the ANZ participants described themselves as Kiwi, or had suggested that they were accepting of eventually identifying as such. These changes in identity were analysed through the lens of Norton’s concept of identity (1997) and investment (1995). The ANZ participants who have chosen to identify as Kiwi have joined a social group that they would never have considered identifying with when they resided in South Africa. In effect, they have changed their social group identification and illustrate this by shifting from one in-group to another (Turner, 1985).

This subsequently provides the participants, who have experienced varying levels of culture shock, with a secure place from which to rebuild and recover from any vulnerability brought about by their relocation. In turn, this safe place allows for the participants’ self-esteem to increase (see Tajfel & Turner, 2004). The participants change in identity as they assign themselves a place in the social environment and are therefore able to construct their own personal identities within the New Zealand context. This reflects the second function of Stets and Burke’s (2000) social classification. In order to identify comfortably as Kiwi, the participants, either consciously or subconsciously, choose to downplay the differences (Bucholtz & Hall, 2004) between native New
Zealanders and themselves. One way of doing this is to change their L2 accent and approximate towards an NZE dialect. A clearly L1 phonological system is considered to be the strongest linguistic indicator of a speaker’s cultural identification with the target language speakers (Lybeck, 2002). Therefore, by reducing the difference in their dialects, the ANZ participants demonstrate their investment in their new NZE speech community and social group, something they did not find necessary to do in South Africa, where they have no desire to identity with English L1 speakers – see van der Westhuizen (2018) on the notion that Afrikaner identity was “constructed... in opposition to Anglo whiteness.

Norton’s (1997) concept of identity incorporates the complex nature of an individual’s self-identity. It incorporates the malleable nature of identity and factors which influence identity change over time. Their possibilities for the future changed for the ANZ participants of the present study when they relocated to New Zealand, and consequently experienced a shift in their identities. The belief that the acceptance of a social identity by an individual illustrates their acknowledgement that they share the group’s fate (Ashforth & Mael, 1989; Hogg & Abrams, 2002; Tajfel & Turner, 2004), is reflected in the data by comments by MANZ4 and MANZ1:

MANZ4: … I think it’s better to identify with where you live. I mean, you get all the benefits of this great country so you might as well identify with it.

MANZ1: I love being a Kiwi. I love it. I identified … That’s who I am. That’s what I am.

These comments also identify the investment (Norton Peirce, 1995) that these participants are showing in their new social group and NZE speech community, as well as in their futures in New Zealand.
Chapter 10

Conclusion

10.0 Summary of the research

The present study sought to determine whether there was a difference in L2 English pronunciation between Afrikaans-speaking migrants in New Zealand and Afrikaners in South Africa. It also sought to investigate what may possibly have caused such differences to occur and to consider the self-identity construction of a cohort of Afrikaans speakers after relocation from South Africa to New Zealand.

Previous research on older learners (past the age of puberty) of second languages focussed on individuals that were, in most cases, acquiring an L2. Where the present study fills a gap in the present research is that it concerns a cohort of participants which has used and communicated in L2 English for a long period of time in South Africa. These ANZ participants would probably have used fossilised systems of Afrikaans English when they lived in South Africa (as the ASA participants do), in part because of a history of hostility towards SAE speakers and resistance to sounding like English speakers. Besides determining whether Afrikaans-speaking immigrants to New Zealand do in fact speak English differently from their counterparts who remain in South Africa, from which it is extrapolated that they have changed their pronunciation, this study also investigates whether a possible change in how they identify themselves after migration to New Zealand somehow correlates with the reactivation of what would have been a fossilised phonological system. This subsequent change in pronunciation, it is maintained, has produced a new L2 dialect.
The findings of the study indicated that the L2 English pronunciation of the ANZ participants differed from that of their ASA counterparts. Further analysis of these findings suggests an approximation of the L2 pronunciation of the ANZ participants towards that of the NZE speakers. The findings also indicated that several of the participants had changed their self-identities after relocating to New Zealand. Four ANZ participants identified as Kiwi and another was open to the possibility of eventually identifying as a New Zealander or Kiwi. It was suggested that factors such as having an NZE-speaking partner, culture shock, social identity and entry into new speech communities, attitudes towards New Zealand and its citizens as well as having children in NZ, influenced both their identities and pronunciations in New Zealand.

These results were discussed with reference to relevant SLA and SDA research and using the framework of Norton’s (1997) concept of identity and her concept of investment (1995). Using this framework, the study considered the ANZ participants’ individual pasts in South Africa, and their presents and futures in New Zealand, while along with their understanding of the cultural capital that could be gained for them and their families by joining new social groups in the NZE speech community. The findings of this study can be placed firmly within the framework of existing theories and relevant research in the domain of second dialect acquisition.

The present study suggests links between a change in identity and an observable difference in pronunciation which is extrapolated to indicate a change in pronunciation. It is suggested that changing their self-identity to be Kiwi causally influences the change in pronunciation of the ANZ cohort of participants. Norton’s (1997) view of identity can be seen to be at work in the shifting identities of the ANZ participants.
10.1 Limitations of the study and directions for future research

There are a number of limitations to this study. After the data collection was completed, it was discovered that there was simply too much data for one researcher to analyse in a timely fashion, or to fit within the word boundary of the thesis. In order to cope with this some of the data, such as pronunciation of diphthongs, several long vowels, and vowels in pre-nasal, pre-/l/ and pre-/r/ environments, was omitted.

There were difficulties finding participants for the study, with the result that there was a relatively small cohort of ANZ participants and unequal numbers of female and male participants within the cohorts. The ANZ speakers were limited to participants in one geographical area, namely Dunedin. Future research could use participants throughout New Zealand. This would not only allow for a larger cohort of participants, but also for the introduction of additional variables such as urban versus rural settings. This might also include a statistical analysis of gender as a variable in the migrant setting in New Zealand. Proper statistical analysis of gender could include research into leaders of change in language, an area just touched on in this thesis.

It was found during the analysis that the reading text used in this study (Comma Gets a Cure) was not as effective as it may have been. There were too few tokens of certain key sounds which preliminary evidence suggests are changed in the English of the ANZ participants, such as the START vowel and word-final voiced stops (devoicing of word-final stops is common in Afrikaans). The research used a reading which had been used effectively in other studies, but future research might locate a more suitable reading or create a purpose-specific passage for Afrikaans L1 speakers.

Lastly, the interview questions were found to fall short of what was intended. Open-ended questions provided their own difficulties as participants developed their
own individual understandings and each unique answer did not always address the objective of the question. This also resulted in a lot of noise data to sort. Possible future research could include more prompts from the researcher to guide the participants carefully back to the purpose of the question. The use of Likert scales would permit an easier statistical analysis and avoid these problems. However, the open-ended questions did allow for more natural answers which the complex nature of identity might preclude from being demarcated on a fixed scale.

Evidence of the awareness of the overall change in language being used daily is obvious in the interviews. The change in pronunciation was not mentioned by any of the male participants, although it was mentioned by some of the female ANZ participants. It is possible that some of the participants are changing their phonological systems unconsciously. This would need to be studied further in order to be more conclusive and is, therefore, a possible direction of future research. However, anecdotal evidence\(^{20}\) exists to suggest that at least some Afrikaans speakers in New Zealand are conscious of changing their pronunciations.

Future research could analyse the sounds that were not dealt with in this thesis. Sounds for which no data was analysed in the study might be considered, e.g. FLEECE /i:/, THOUGHT /ɔː/, STRUT /ʌ/, and diphthongs such as NEAR /iə/, SQUARE /eə/, and MOUTH /aʊ/, to provide clearer evidence of a shift in the pronunciation in the L2 English-speaking migrant population. Such research could also engage in the possibility of a DRESS-initiated chain shift in migrant second dialect NZE, as was alluded to in the discussion. Another avenue would be to investigate L2 English discourse and lexicon in the Afrikaans-speaking population in New Zealand. Examples of this would be the use of ‘heaps’ as an ubiquitous intensifier and ‘farewell’ as a verb, the use of ‘yeah no/ yeah

\(^{20}\) Conversations between the researcher and Afrikaans acquaintances in New Zealand
nah’ before answering a question which is a common discourse marker in NZE, although few studies have investigated this (for an Australian example, see Burridge & Florey, 2002). ‘Yeah no’ would be an interesting feature to investigate as Afrikaans has ‘ja nee’ (yes no).

Further research could focus on other factors which could influence a change in pronunciation such as age on arrival and length of residence. A more thorough investigation could be conducted into the influence of gender on the acquisition of L2 pronunciation.

While this research focussed solely on L1 Afrikaans-speaking migrants, future research could consider how other second language speakers of English develop their interlanguages in similar situations. Most migrants experience various levels of culture shock, and fragile language egos as a result of the stress of acculturating to a new culture. Afrikaans-speakers presumably have fossilised L2 English phonological systems when they arrive, and this might the case be with French, German, Italian, Spanish, Japanese, Chinese, Thai and speakers from a variety of other countries who migrant to New Zealand. It would be interesting to determine whether these adult migrants undergo the same changes in identity and pronunciation. The results from a comparative study with different L2-speaking migrants might clarify the difficulties each language speaker has with NZE and provide opportunity for pedagogical applications for targeted language assisted in migrants who have sought out tutelage.

Future research might focus on the examination of individual speakers’ pronunciation in more detail and link the findings specifically to their individual views on identity.
10.2 Concluding Remarks

The purpose of this study was firstly to determine whether the pronunciation of the English of ANZ speakers was different from that of Afrikaners in South Africa and secondly to investigate whether there was a relationship between migrants’ self-perceptions of their identities, their investment in New Zealand and observed changes in pronunciation. The difference between the ANZ and ASA cohorts in the aspiration of syllable-initial consonants, articulation of the voiceless glottal fricative and postalveolar approximant, and the articulation of vowels implies a change in the L2 phonological system of the ANZ speakers. The self-described changes in identity, along with the differences in pronunciation, indicate a link to this approximation to the NZE in pronunciation.

In this thesis, I have presented a limited overview of the Afrikaans-speaking migrants who have relocated to New Zealand and examined how their L2 phonological systems seem to have changed. My results contradict some views on the fossilisation of interlanguage as my data shows that the participants have re-energised what would have been prior fossilised L2 phonological systems. This study also suggests that identity has a role to play in the acquisition of a new L2 phonological system, although it does not discount the importance of other possible factors.

To conclude, this study has provided a novel look into the relationship between identity and L2 pronunciation. It has considered a population which already had well-developed L2 English systems and illuminated how their L2 phonological systems appear to have changed post-relocation to a different L1 English environment. Essentially, a gap has been filled in the research concerning the acquisition of L2 pronunciation.
Bibliography


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Appendix 1: Information Sheet – South Africa

The change in L2 English pronunciation of Afrikaans-speakers in New Zealand

Interview

This interview should last about 15 minutes

Welcome!

Participation in this project is entirely voluntary. I am a current PhD student at the University of Otago, New Zealand studying linguistics. I’m collecting speech data and information on self-perceptions of identity both in South Africa and New Zealand as I am looking at reasons why Afrikaans-speakers change their English pronunciation upon their relocation to New Zealand. I will be recording the interviews so that I can hear differences in pronunciation to be able to compare the different groups. I will be using this data as the basis for my PhD which I will analyse upon my return to NZ. The recorded data will be destroyed once the analysis is complete. The transcriptions will be kept for 5 years. Your name will never be revealed to anyone other than my supervisor and myself and you will be identified by a number or, if you wish, a pseudonym of your choosing.

I will ask about your identity and age group as these are factors that I am considering in my research.

You are welcome to contact me afterwards if you want to change any of the information you gave me or if you need more details. You are welcome to ask me or my supervisor or additional information. You are also welcome to contact me in a few months if you would like the transcription of your interview to check my accuracy. My email address is howgr345@student.otago.ac.nz

I will try and make the interview as easy and comfortable for you as possible and, if at any time you feel you can’t answer a question, please feel free to say so. If you would like to stop answering all questions, please feel free to say that too.

Thank you. Baie dankie

- Please sign the consent form and indicate your age group and first language
- Please answer in English
- Please introduce yourself and mention what your first language is and how many languages you speak.
Questions to get you started

1) Have you lived in South Africa your entire life? If so, where within this country have you lived? If not, in which other countries have you resided?
2) Where did you learn your English?
3) Did you use Afrikaans exclusively at home? Can you give me a rundown on which languages you use on a daily basis and in which environments? (i.e. at home, work, church, etc.)
4) Could you give me a recollection of how your family went about a day as you were growing up?
5) Do you feel now that your use of language has changed?

Let’s go a bit deeper now

6) In terms of identity, how would you define yourself?
7) How do you think you show this identity? Do you show it at all?
8) Have you ever consciously changed your identity to fit in with another group, either for a short while or long term? If so, could you explain how you went about it?
9) What perceptions do you think are associated with the identities in this country?
10) What perceived advantages or disadvantages can you think of by identifying with this group?
11) Are there things which make you proud of your identity?
12) Concerning this country, what do you think are the pros and cons of living here?
13) Have you ever considered relocating?

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research, you may contact the committee through the Human Ethics Committee administrator (ph. +64-3-479-8256). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
Appendix 2: Information sheet – New Zealand

The change in L2 English pronunciation of Afrikaans-speakers in New Zealand

Interview

This interview should last about 15 minutes

Welcome!

Participation in this project is entirely voluntary. I am a current PhD student at the University of Otago, New Zealand studying linguistics. I’m collecting speech data and information on self-perceptions of identity both in South Africa and New Zealand as I am looking at reasons why Afrikaans-speakers change their English pronunciation upon their relocation to New Zealand. This data also includes South African English speakers for comparison. I will be recording the interviews so that I can hear differences in pronunciation to be able to compare the different groups. I will be using this data as the basis for my PhD which I will analyse upon my return to NZ. The recorded data will be destroyed once the analysis is complete. The transcriptions will be kept for 5 years. Your name will never be revealed to anyone other than my supervisor and myself and you will be identified by a number or, if you wish, a pseudonym of your choosing.

I will ask about your identity and age group as these are factors that I am considering in my research.

You are welcome to contact me afterwards if you want to change any of the information you gave me or if you need more details. You are welcome to ask me or my supervisor or additional information. You are also welcome to contact me in a few months if you would like the transcription of your interview to check my accuracy. My email address is howgr345@student.otago.ac.nz

I will try and make the interview as easy and comfortable for you as possible and, if at any time you feel you can’t answer a question, please feel free to say so. If you would like to stop answering all questions, please feel free to say that too.

Thank you. Baie dankie

- Please sign the consent form and indicate your age group and first language
- Please answer in English
- Please introduce yourself and mention what your first language is and how many languages you speak.
Questions to get you started

14) How long did you live in South Africa? Where within this country have you lived? In which other countries have you resided?
15) Where did you learn your English?
16) Which languages do you use at home? Can you give me a rundown on which languages you use on a daily basis and in which environments? (i.e. at home, work, church, etc.)
17) Could you give me a recollection of how your family went about a day as you were growing up?
18) Do you feel now that your use of language has changed?

Let’s go a bit deeper now

19) In terms of identity, how would you define yourself?
20) How do you think you show this identity? Do you show it at all?
21) Have you ever consciously changed your identity to fit in with another group, either for a short while or long term? If so, could you explain how you went about it?
22) How would you describe a typical Kiwi, or the NZ identity?
23) What perceptions do you think are associated with the identities in this country versus your country back home?
24) What perceived advantages or disadvantages can you think of by identifying with this group?
25) Have you ever experienced discrimination due to accent or identity?
26) Are there things which make you proud of your identity?
27) Concerning this country, what do you think are the pros and cons of living here versus South Africa?
28) Have you ever considered relocating once more or returning to South Africa?

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research, you may contact the committee through the Human Ethics Committee administrator (ph. +64-3-479-8256). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
Appendix 3: Reading

COMMA GETS A CURE

Well, here's a story for you: Sarah Perry was a veterinary nurse who had been working daily at an old zoo in a deserted district of the territory, so she was very happy to start a new job at a superb private practice in North Square near the Duke Street Tower. That area was much nearer for her and more to her liking. Even so, on her first morning, she felt stressed. She ate a bowl of porridge, checked herself in the mirror and washed her face in a hurry. Then she put on a plain yellow dress and a fleece jacket, picked up her kit and headed for work.

When she got there, there was a woman with a goose waiting for her. The woman gave Sarah an official letter from the vet. The letter implied that the animal could be suffering from a rare form of foot and mouth disease, which was surprising, because normally you would only expect to see it in a dog or a goat. Sarah was sentimental, so this made her feel sorry for the beautiful bird.

Before long, that itchy goose began to strut around the office like a lunatic, which made an unsanitary mess. The goose's owner, Mary Harrison, kept calling, "Comma, Comma," which Sarah thought was an odd choice for a name. Comma was strong and huge, so it would take some force to trap her, but Sarah had a different idea. First she tried gently stroking the goose's lower back with her palm, then singing a tune to her. Finally, she administered ether. Her efforts were not futile. In no time, the goose began to tire, so Sarah was able to hold onto Comma and give her a relaxing bath.

Once Sarah had managed to bathe the goose, she wiped her off with a cloth and laid her on her right side. Then Sarah confirmed the vet’s diagnosis. Almost immediately, she remembered an effective treatment that required her to measure out a lot of medicine. Sarah warned that this course of treatment might be expensive—either five or six times the cost of penicillin. I can’t imagine paying so much, but Mrs. Harrison—a millionaire lawyer—thought it was a fair price for a cure.

Comma Gets a Cure and derivative works may be used freely for any purpose without special permission, provided the present sentence and the following copyright notification accompany the passage in print, if reproduced in print, and in audio format in the case of a sound recording: Copyright 2000 Douglas N. Honorof, Jill McCullough & Barbara Somerville. All rights reserved.
Appendix 4: Spectrograms

Figure 14 Aspirated vs unaspirated /t/

Figure 15 Aspirated vs unaspirated /k/