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1. Aim of the article

When Australia and New Zealand were colonised in the nineteenth century by consecutive waves of European settlement, many Britons, Scots and Irish came to these new lands with the varieties of English that they spoke at “home” (Trudgill 1986; Gordon et al. 2004). Australian English (AusE) and New Zealand English (NZE) emerged from those “pools” of dialects with specific segmental and suprasegmental characteristics. These two varieties being among the latest varieties to have emerged in the English-speaking world, they have only recently been extensively studied and considered as valid research objects by the scientific community, first as “Australasian English”, and then as independent varieties. Beyond critical denunciations and lay theories on the origins of the two Austral varieties (Wakefield 1829; Hornadge 1980; Gordon et al. 2004 for example), Australian and New Zealand researchers have specifically led this change by showing how distinct from an official British standard these two varieties have always been, notably at the lexical, phonological and phonetic levels (Blair and Collins 2001; Przewozny 2002; Bauer and Warren 2008). Linguists have also started documenting the changes that are typical of these varieties and specifically vocalic phenomena (such as Hay et al. 2008). NZE and AusE are often cited as evidence for chain shifting (e.g. Bauer 1986; Cox and Palethorpe 2001; Labov 1994; Langstrof 2006; Watson et al. 2000). For instance, Gordon et al. (2004: 264-276) claim that the short front vowels of NZE have undergone a push chain shift that was initiated by the raising of the vowel in TRAP (lexical sets, Wells 1982) which, in turn, set in motion a chain of changes in the quality of the other front vowels (i.e. literally “pushing” DRESS and KIT out of their initial spaces). Cox, Palethorpe and Tsukada (2004) suggest that in AusE, the raising of the DRESS vowel occurred subsequently to the raising of the TRAP
vowel, further supporting the push chain hypothesis for the short front vowel change and making the latter vowel the initiator of the whole process.

This article aims at approaching these two varieties of English as linguistic objects in motion and, consequently, at providing a dynamic portrait based on authentic data from the PAC program (Phonologie de l’Anglais Contemporain: usages, variétés et structure / Phonology of Contemporary English: usage, varieties and structure) and in particular two surveys: PAC-Australia (Przewozny 2003) and PAC-New Zealand (Viollain 2010). Authentic and recent data give us an opportunity to question the traditional representation of AusE and NZE and to describe the phonological and phonetic reality: what phonological and phonetic features, transported in the nineteenth century, fundamentally determined the development and, at the same time, froze the description of these two varieties? What can we gather from the linguistic changes in progress? Are NZE and AusE behaving in the same way or are they evolving in two different directions?

In Section 2 of this paper, we tackle the historical dimension of this issue by synthetizing the chronology and the theories on the origins of both AusE and NZE. We then move on to the traditional representations that have been made of these two varieties, specifically of their short front vowel systems, which we will put in perspective on the basis of our results from the PAC-AUS and PAC-NZ corpora. Section 4 consists of a short presentation of these corpora. In Section 5, we notably show that, contrary to what has often been said about these varieties, there is intra-dialectal variation, be it phonological, phonetic or sociolinguistic, as evidenced by the variable rhoticity found in the PAC-NZ corpus (Bartlett 1992; Viollain 2014). In Section 6, we confirm that the short front vowels of AusE and NZE do not display the same behaviour. Indeed, the PAC-NZ data show that the chain shift is not completed for some speakers who do not have a fully centralized KIT vowel but a crowded system as far as the front vowels are concerned (see Viollain to appear), which leads to potential mergers (NEAR and SQUARE) and near-mergers (DRESS and FLEECE). In AusE, the consensus on the push chain shift scenario initiated by the raising of the TRAP vowel (see above) has recently been reconsidered (Cox and Palethorpe 2008; Cox 2012), as empirical evidence of a reversal of this shift has been found. An analysis of the PAC-AUS data also allows us to re-evaluate the traditional description of /æ/ as raised (such as [æ æ ɔ̝ ɛ]) and the phenomenon of raising or lowering of the vowel.

2. Historical background

Although there were close connections between Australia and New Zealand from their settlement onwards, the two British colonies developed parallel and rather distinct histories (Gordon et al. 2004: 440-55). The history of New Zealand, and consequently of NZE, is closely intertwined with that of Australia and AusE, since many influential linguists have interpreted the historical precedence of the colonisation of Australia as having linguistic consequences on the emergence and evolution of NZE, assuming an Australian linguistic precedence over the formation of NZE. Mitchell (1995) states that AusE emerged as a distinct variety of English in 1861, that is, soon after New Zealand was first colonised by massive waves of European settlement. According to him, AusE necessarily influenced the formation of NZE. What is more, Australia emancipated from the United Kingdom sooner and more radically than New Zealand did. And, at the beginning of the twentieth century, New Zealand eventually refused to be part of the Australian Federation (Hay et al. 2008: 7) after having considered this possibility in the
1880s. These historical facts have cultural and linguistic consequences in terms of the perception that the rest of the world has of the geopolitical superiority and linguistic prevalence of Australia over New Zealand. Let us consider the fact that AusE progressively became the reference accent for the Asia-Pacific region whereas NZE, after having been systematically compared with RP (Received Pronunciation, Wells 1982) and the British varieties of English (as AusE had), was systematically compared to, and even merged with, AusE (see Section 3).

The history of the settlement of Australia is different from that of New Zealand inasmuch as it underwent four waves of European settlement. From 1788 to 1868, British convicts, free settlers and then assisted migrants settled in Australia. The period from 1851 to 1901 was characterized by the gold rushes to the Federation years and the proclamation of the Commonwealth of Australia Constitution Act, with subsequent waves of British, Irish and other European, Chinese and American migrants. After World War II, many displaced Europeans and British migrants made their way to Australia. A fourth key period, between the 1950s and the 1970s, was the end of the White Australia policy and the subsequent advent of “Ethnic Multiculturalism”. In 2013, the Australian Bureau of Statistics estimated that 27.7% (or 6.4 million people) of residents were born overseas.

As for New Zealand, there were three waves of European settlement after the Treaty of Waitangi was signed in 1840 between the representatives of the British government and about fifty Maori chiefs (Sinclair 1991). Planned immigration between 1840 and 1852 led to the settlement of Wellington and New Plymouth in the North Island, and Nelson, Canterbury and Otago in the South Island. The Northern War (1845-1846), which opposed Maoris and British settlers in the Cook Strait and Northland, also brought new migrants, i.e. soldiers. In 1861, the discovery of gold in Otago triggered a gold rush that made the population of the region more than double in the two years between 1861 and 1863 (Hay et al. 2008). The period starting in 1870 and ending in the 1890s was the time of an “assisted passage” policy that was handled by the New Zealand government itself. That period saw the decline of massive immigration to New Zealand as the country underwent a period of severe economic depression. The last migrants to benefit from an “assisted passage” arrived in 1891. In the twentieth century, immigration continued but never reached the levels that it did in the second half of the nineteenth century. Moreover, Australia became a more attractive destination for migrants in the twentieth century with the development of diverse socioeconomic opportunities. Hence, New Zealand in the twenty-first century is mostly a White (Pakeha) society, even though things are progressively evolving. The 2013 census figures showed that 74% of New Zealanders identified as of European descent whereas 15% identified with Maori ethnicity, 12% with Asian ethnicity and only 1% with other ethnicities such as Middle-Eastern, Latin-American or African.

As for the geographical roots of the settlers, historians have at their disposal demographic information showing that the components of populations that were brought to Australia and New Zealand were analogous but obviously not exactly the same. This largely informed the way in which AusE and NZE were considered in relation to each other and described linguistically. Originally, Australia was an immigrant society, split between convicts and settlers, with an urban type of settlement until the 1820s. From 1788 to 1840, 80 000 convicts were sent to Australia. They mainly came from England, London and the Home Counties (by place of trial or birth), the Midlands and Ireland (Mitchell 1995, Trudgill 1986, Britain 2008, Przewozny 2016 in press). As for New Zealand, the census
figures of 1871 (McKinnon 1997 in Gordon et al. 2004: 444-445) acknowledged 51% of settlers coming from England, 27.3% from Scotland and 22% from Ireland. A few settlers also came from Australia, and most of the time from the British Isles before that (and also from Wales but in far lesser numbers). One of the major distinctions in the origins of the migrants to Australia and New Zealand is the proportion of Scottish migrants who settled in the southernmost parts of the South Island of New Zealand and the proportion of Irish migrants who settled in Australia right from the beginning of its colonisation. As we shall see, this had major phonological effects, notably as far as the survival of rhoticity in the southernmost regions of New Zealand is concerned.

All along the nineteenth century and well into the twentieth, Australia and New Zealand were often perceived as the place where the English language and culture were degraded, perverted, corrupted. There are three equally possible explanations for this: the penal quality of the original settlement in New South Wales, political anxiety on the part of the British Mother country (the United States of America had declared their independence in 1776 and British rule risked being further shaken up) as well as scientific amateurism. British judges of the language would usually consider the “Australasian dialect” as careless, lazy and slovenly speech, reflecting potential intellectual disabilities on the part of the Australasian population.

In this context, in which the dominant linguistic ideology (Mazzon 2000; Milroy 2001; Viollain 2014) favoured the British standard, lay theories easily developed on the “English of the Dominion” (Gordon et al. 2004: 69, Bauer 1994, Blair and Collins 2001, Przewozny 2002, 2016 in press). Fortunately, in the second half of the twentieth century, those lay explanations were to be replaced by more scientific considerations on the origins of Australian and New Zealand pronunciations. However, some of these scientific accounts were still informed by the dominant linguistic ideology as they essentially relied on a monogenetic vision of the origins of both AusE and NZE. Australasian observers and linguists retained Cockney pronunciation as a possible account for some inherited phonological features of both AusE (Hammarström 1980) and NZE (Bauer 1994). This hypothesis underlined the English southeastern nature of these colonial varieties. A monogenetic account of the origins of NZE, called the “New Zealand English as Australian” hypothesis (Gordon et al. 2004), argued that NZE and AusE historically formed one single variety known as “Austral English” (Bauer 1994; Gordon and Deverson 1985). Consequently, what we analyse as a form of linguistic hierarchy seemed to place the British standard at the top, then the British varieties that were said to have influenced AusE and NZE, such as Cockney, and then AusE and, at the bottom, NZE that was seen as the result of both British and Australian influences.

The extent to which some dialects must have influenced other dialects, and for instance the extent of the influence of AusE on NZE, is a matter of huge debate that is beyond the scope of the present article. There is scientific consensus today on the fact that both AusE and NZE arose from a rather similar mixture of different dialects of English: “out of a welter of dialects there grew up in a remarkably short space of time a form of English which was not identical with any one of them but presented a unique set of dialectal features deriving probably from several British dialects” (Lanham 1967: 104, quoted in Trudgill 2004: 11). This consensus led to the development of theories on the polygenetic origins of AusE and NZE that have received several labels in the literature: some linguists have assumed the possibility of a “mixing bowl” (Bernard 1969) or a “melting pot” (Gordon and Deverson 1985). “New-dialect formation” is the name that Trudgill (1986,
1998, 2004) coined for his theory of the emergence of NZE specifically, and by extension of Southern Hemisphere Englishes. Horvath (1985) and Gordon et al. (2004) acknowledge a process of new-dialect formation, which they have termed “convergence hypothesis”.

Trudgill (1986) and Guy (1991) put forward the hypothesis that the original criminal population in Australia spoke essentially an urban type of English and that Early AusE was mainly composed of a transported southeastern dialect of English, with Irish as a second component (10% of New South Wales Australians would then be Irish Gaelic speakers) and other minor influences from the Midlands, East Anglia, Scotland and Wales. This was considered a sound hypothesis among the scientific community until it was questioned by more recent work. For example, Britain (2000: 90, quoting Haines 1994: 242-246) refined the profile of the average migrant towards Australia:

- a typical adult government assisted male emigrant tended to be a semi-skilled English agricultural worker, while a typical single female worker tended to be an Irish domestic servant...
- English government assisted immigrants came predominantly from the southern, rural, or suburban low-wage rural counties and tended to be agricultural labourers, or to claim a pre-industrial trade.

This shows that one single account of the origins of AusE prevailed in the literature until it was reconsidered on the basis of corpus data and detailed demographic information. Britain (2008) also questions the “Australian as Irish” hypothesis, which claims that some features of AusE are inherited Irish features. Britain argues that the Irish contribution to AusE is not necessarily direct, in the sense that AusE inherited Irish features, because the Irish population in Australia was a minority compared to the population coming from the south of England. However, Irish migrants did represent a large minority and contributed to making specific features the indisputable majority features in Australia, therefore ensuring their survival. In other words, where they used identical features to those brought by other settlers, especially settlers from the south of England, they made those features most likely to survive the process of new-dialect formation. His analysis is inspired by Trudgill’s (2004) model of the emergence of NZE that argues that majority variants, i.e. variants used by the majority of the population in a specific place, are those that survive in the new focused variety. These elements point to the fact that research on the origins of AusE, and similarly of NZE, as we shall see in the next section, is ongoing and still trying to go beyond historical and theoretical preconceptions (see Clark et al. 2015, Przewozny 2016 in press).

In the context of New Zealand, most studies agree on the fact that most settlers came from the counties around London (Essex, Kent) and the southern counties of Devon, Somerset and Dorset (Pickens 1977; Gordon et al. 2004). Settlers from Scotland mainly came from the Lowlands and settled in Otago and Southland, the two southernmost regions of the South Island. The Irish presence was weaker in New Zealand than in Australia, especially because, during the first wave of massive immigration planned by the New Zealand Company, Irish migrants were intentionally pushed aside (Gordon et al. 2004). As in the case of AusE, a monogenetic account of the origins of NZE prevailed in the literature for quite a while that presented the typical migrant to New Zealand as coming from London or the areas around London.

The authentic data collected by the Mobile Unit of the ONZE project (see below) forced linguists to re-evaluate these conclusions and the consensus today is that the majority of the migrants to New Zealand came from the south of England, and mostly from rural areas (Gordon et al. 2004; Trudgill 2004). Moreover, Trudgill himself (2004; Trudgill et al.
2003) recognizes that he was mistaken in assuming that the centrality of the KIT vowel in contemporary NZE was directly inherited from Scottish varieties of English. On the basis of the study of the Mobile Unit recordings, he concludes that the movement of this vowel is really a twentieth-century innovation in NZE. We understand that the issue of the origins of the colonial varieties of English is not straightforward and that researchers have to look beyond apparent British, Irish or Scottish legacies to AusE and NZE.

In a nutshell, Australia and New Zealand were both colonized during the nineteenth century with waves of immigrants from similar (but not strictly identical) geographical and linguistic origins. What is interesting then is the different paths that the two linguistic communities followed. We will focus on two phenomena that allow us to study this linguistic distinctiveness, namely rhoticity and the short front vowels (KIT, DRESS and TRAP) that are involved in a chain shift in both varieties. Australia and New Zealand share a common piece of linguistic history insofar as both varieties have been described through the filter of the British standard, and as their origins have been theorized on the basis of some historical and linguistic preconceptions. Section 3 describes the traditional representations of AusE and NZE in the system of English varieties and the subsequent frozen representation of both varieties.

3. Traditional representations of AusE and NZE among British varieties of English

Some major accounts of AusE and NZE describe them as having similar pronunciations, for example Wells (1982: 592):

> The Australian and New Zealand accents of English are very similar to one another. South African, although differing in a number of important respects, also has a general similarity to Australian. These facts are not surprising when we consider that all three territories were settled from Britain at about the same time, the English language becoming established in each around the beginning of the nineteenth century. All reflect the developments that had taken place in the south of England up to that time: they are non-rhotic and have BATH broadening. [...] It is appropriate to group these three regional forms under the common heading of southern-hemisphere English.

Among key factors for such a statement are the features of a major southeast English component: non-rhoticity and BATH broadening (see rhoticity in NZE in Section 5). In turn, AusE is described as "very close" to RP (Wells 1982: 595), and indeed we may argue that AusE displays a similar system of phonemic oppositions, with differences being only at the realisational level. Both AusE and NZE belong to the British stream of English (Algeo 1986). A negative outcome of this geographically convenient account of AusE and NZE was that the representation of the two pronunciations was merged in a number of studies and seen through the filter of the British standard. A further corollary was a globalised description of the dialects, with neither geographical specificity nor any individualised report of historical development. In turn, the effect of this globalised vision of "southern-hemisphere English" was to prevent the description of each system for their own sake, freezing any possibility to depict intra-dialectal variation and interaction between the two pronunciations.

Historically, this prompted strong reactions on the part of some Australian and New Zealand linguists. To illustrate our point, let us consider the short front vowels of the
TRAP, DRESS and KIT lexical sets in AusE and NZE, which are among the most distinctive features in these varieties. Hay et al. (2008: 41) humorously point this out: “Australians accuse New Zealanders of saying fush and chups and New Zealanders claim that Australians say feesh and cheeps.” Table 1 provides a quick historical overview of the way in which key Australian and New Zealand phonologists and phoneticians have represented these vowels for AusE and NZE respectively. Wells’ own representation of AusE and NZE is also included:

Table 1. Historical overview of the representation of short front vowels in AusE and NZE

<table>
<thead>
<tr>
<th>AusE</th>
<th>NZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mitchell (1946)</td>
<td></td>
</tr>
<tr>
<td>KIT /ɪ/</td>
<td>DRESS /ε/ TRAP /æ/</td>
</tr>
<tr>
<td>Wells (1982)</td>
<td></td>
</tr>
<tr>
<td>KIT /ɪ/</td>
<td>DRESS /ε/ TRAP /æ/</td>
</tr>
<tr>
<td>Harrington, Cox, Evans (1997)</td>
<td></td>
</tr>
<tr>
<td>KIT /ɪ/</td>
<td>DRESS /ε/ TRAP /æ/</td>
</tr>
<tr>
<td>Cox (2008), Horvath (2008)</td>
<td></td>
</tr>
<tr>
<td>KIT /ɪ/</td>
<td>DRESS /ε/ TRAP /æ/</td>
</tr>
</tbody>
</table>

It is worth noticing that Harrington et al. (1997) offer a similar representation of AusE to that provided by Hay et al. (2008) for NZE. We also note that the systems presented by Cox (2008) or Horvath (2008) and Mitchell (1946) only differ in one phoneme, i.e. the DRESS vowel which is either a mid-open or a mid-close vowel. As for the representations of NZE, the difference is more radical to the extent that Hay et al.’s still presents a short front vowel system distinguished by three degrees of height, whereas both Wells’ and Bauer & Warren’s systems have a centralized KIT vowel. What is more, Bauer & Warren represent the fact that this vowel is not fully centralised (/ə/) whereas Wells uses schwa (/ə/). In the same way, Bauer & Warren use the mid-open symbol (/ɛ/) to represent the TRAP vowel whereas Wells uses an open vowel (/æ/). As a matter of fact, Wells (1982) is the first to comment on the fact that the vowel in DRESS is closer in AusE and NZE compared to the British varieties. However, his phonemic representation does not show this since RP, AusE and NZE all have /e/ in DRESS. What is also interesting to notice is that, if Wells states that NZE is basically similar to AusE which is, in turn, rather similar to RP, he puts forward in his representation one of the most distinctive features of modern NZE, that is the centrality of the KIT vowel. He symbolises this centrality with schwa whereas, in the rest of his Accents of English, he has established it as a reduction vowel. There seems to be a bit of a paradox here since Wells describes the two varieties as basically similar whereas NZE is represented as having a very unusual KIT vowel when AusE has a standard close front vowel.

The chronological representations (Table 1) were formed on the basis of several criteria: the traditional lexical sets used for RP, so as to preserve phonological intelligibility and comparability, as well as historical reconstructions and sociolinguistic data. Mitchell’s
representation of the vowel in *dress* is based on Daniel Jones’s own description of *RP*. One should also be aware that contemporary Australian and New Zealand linguists rely heavily on authentic data and acoustic analyses and that, as suggested in Section 1, they have always been keen to promote distinctiveness in their descriptions of *AusE* and *NZE*. In fact, if *AusE* and *NZE* do display similarities in terms of phonemic systems, it is nevertheless true that, in Australasia, two systems (*AusE* and *NZE*) of pronunciation coexist. We therefore witness a movement in both Australia and New Zealand away from the previously dominant linguistic ideology that used the British standard as the reference system of representation for historically related varieties such as *AusE* and *NZE*. Cox (2006: 7) perfectly expresses this movement:

> The phonemic transcription system proposed by Mitchell (1946) derives from the contrasts present in Received Pronunciation of British English (*RP*), which was, at the time, the external standard for Australian English. Mitchell’s traditional system fails to capture the phonetic characteristics that differentiate Australian from British English dialects. It may be argued that Mitchell’s system was never intended to capture phonetic accuracy, as phonemic transcription is merely a tool for describing contrasts. However, transcription as a technique for indicating pronunciation should reflect aspects of speech production and, as *AusE* no longer holds *RP* as its external standard, the transcription system should reflect speech patterns based on Australian norms.

This illustrates a major turning point that took place in Australasian linguistics about a decade ago, *i.e.* the need was felt to reconcile the choice of traditional representative phonemic symbols with Australian and New Zealand realities of pronunciation. Indeed, the choice of phonemic symbols could seem incidental but the phonemic representation of a specific variety of English constitutes the first degree of phonological abstraction that is meant to say something about the system of opposition in that variety. What is more, as Cox (2006) points out, transcription is also meant to provide information on the acoustic corollaries of the sounds of a specific variety.

Consequently, the task is not easy for researchers because choosing very distinct symbols for *AusE*, *NZE* and *RP* may reflect the phonetic reality but would imply that these systems are more different than they really are at the phonological level. In the same way, choosing the exact same symbols for all three varieties might say something true about the similarities between these systems but may well overlook major realised differences. It seems to us that the potential choices made by researchers are largely influenced by identity issues, namely that Australian and New Zealand phonologists want it to be acknowledged that Australia and New Zealand do have their own voices. Different views of what a phoneme is emerged in Australia and New Zealand that started questioning the number of aspects of speech production that a phonemic transcription should indicate. We shall see that representing contrastivity is a complex issue. But our point here was to underline a major change in the linguistic tradition in Australia and New Zealand as far as representing the vowel systems of these varieties on the basis of an external British standard is concerned.

Original and authentic oral data of *NZE* and *AusE* were an interesting incentive to reconsider the whole system of representation. Australian and New Zealand linguistics show a long tradition of fieldwork and corpus making. In Australia, one of the first surveys was organised in the early 1940s by Sidney John Baker (1945, 1966), a journalist and amateur linguist who asked Australians to send him back some “Observer’s Notes” and took advantage of his own ABC radio programme to promote the literary and...
linguistic virtues of the Australian dialect\textsuperscript{11}. On more scientific grounds, Mitchell and Delbridge (1965) went walkabout in the country for an innovative sociolinguistic survey of adolescent speakers. Closer to us, Australian linguists accelerated the pace of corpus-building so as to get acoustically efficient and representative data, both from diachronic as well as from synchronic points of view (Cox 1996 and later pub.). The Australian National Database of Spoken Language (ANDOSL, 1992) and AusTalk (An audio-visual corpus of Australian English, 2011) are two leading examples of Australian-made corpora of spoken AusE.

The New Zealand linguistic tradition also relies on the use of corpora. Among them, the ONZE project is outstanding, first of all for historical reasons, as Maclagan and Gordon (2004: 41) underline: “The European settlement of New Zealand dates back about 160 years, which means that New Zealand English (NZE) developed at a time when it was possible to have not only written accounts of early speech but also recorded evidence.” As a matter of fact, ONZE has colossal and unique historical archives on the origins of NZE, with three oral corpora. The Mobile Unit (MU) consists of recordings collected between 1946 and 1948 of 300 speakers born between 1851 and 1910; the Intermediate Archive consists of recordings collected in the 1990s of approximately 140 speakers born between 1890 and 1930, from four different sources and consequently from different geographical areas in New Zealand; finally the Canterbury Corpus\textsuperscript{12} is an archive collected by students in linguistics since 1994. The latter constitutes a judgment sample, which means that it aimed at recording an equal number of men and women, younger and older speakers, and an equal number of speakers from a privileged socio-economic background and speakers from lower social classes.

We do believe that corpora can help us gain perspective on the theoretical literature on the origins and evolution of AusE and NZE. What is more, the principles, methods and tools that we use in the PAC programme are not the same as those on which these projects rely. Thus, we intend to integrate our work to the research on both these varieties.

### 4. The PAC programme in Australasia

Comparing recent data to previous studies may well help us evaluate some on-going changes for an appropriate description of AusE and NZE. For that purpose, two surveys were organised in Australia (Przewozny 2003) and New Zealand (Viollain 2010) within the PAC programme (Phonologie de l’Anglais Contemporain: usages, variétés, structure\textsuperscript{13}) whose database revolves around thirty-one survey locations in the English-speaking world\textsuperscript{14}. Its five original ambitions are to promote an accurate picture of contemporary oral English in its unity and its geographical, social and stylistic diversity, to test phonological and phonetic models from synchronic, diachronic and variationist points of view, to favour communication between phonologists and speech specialists, to provide data and analyses improving the teaching of English (L1/L2) and to preserve spoken varieties of English.

A common methodology was set up in 2004 for all surveys (including the conditions of recording and the processing of the data). However, additional tasks may be added (see Section 5 on variable rhoticity in NZE). Four styles of recording are meant to check the speaker’s phonological system and his link-up between speech and writing: two wordlists and a text to be read, one semi-structured conversation (or “formal interview”) between
the informant and the interviewer, and one free conversation between the informant and a relative, friend or workmate.\textsuperscript{15} The following principles are promoted: dialectological and sociolinguistic criteria (classical Labovian style\textsuperscript{16}, networks \textit{à la Milroy}), a policy of consent forms and anonymised data, a Standard Orthographic Transcription (SOT) in a PRAAT environment and a multimodal analysis of the data, from phonology to oral syntax. As for other sociolinguistic criteria (see Viollain 2014), informants should typically be selected in samples of at least ten to twenty speakers and a PAC survey should favour an equal number of male and female speakers and balance in generations (for example, 20+, 40+ 70+) as well as basic social class representation trying to reach basilectal, mesolectal and acrolectal levels of speech.

The PAC-AUS survey (New South Wales) was launched in 2003. Three locations with three family networks were chosen with reference to the ternary sociophonetic spectrum of AusE, in Northbridge, Sydney, Deniliquin and White Cliffs. Ten adult speakers (five women, five men) and two children were recorded, representing four generations (6<18; 18<35; 35<55; 55+). The adults may fall into the categories of Australian working and upper middle classes (Przewozny 2015). As for the PAC-NZ corpus, 13 informants were selected in Dunedin (see Viollain 2014, Przewozny and Viollain 2015). This location was chosen because it is the capital of the Otago region, which constitutes, with the Southland region, the southernmost parts of New Zealand. The two regions have always been described (by Wells 1982 or, more recently, by Bartlett 1992) as a resistant pocket of rhoticity in a non-rhotic territory. Dunedin was also chosen because it is one of the four main urban centers in New Zealand, which ensures a diversity of potential informants, as far as age, sex, socio-economic background and geographical origins are concerned. All our informants are Pakeha, which means that they have Anglo-Saxon or European origins. There are, therefore, no Maori informants in our corpus as Maori-accented English constitutes a distinct variety (Gordon \textit{et al.} 2004: 70) and we wanted this ethnic variable not to influence the results of our study of contemporary NZE. Among the thirteen informants that constitute the final corpus, there are five men and eight women; three informants are between the ages of 18 and 20 (two women and one man), five informants between 43 and 51 (three women and two men) and five informants are between the ages of 65 and 76 (three women and two men).

As our readers may not be fully familiar with the areas we refer to, maps of our surveys are included below:
We now propose to consider the two phenomena that allow us to study phonological and phonetic changes in AusE and NZE and to support a theoretical middle ground between total similarity and radical distinctiveness between these two varieties.
5. Variation in Australasia: variable rhoticity in NZE

Australia and New Zealand are generally described as homogeneous varieties of English, lacking much regional variation. This has to do with the emergence of new focused varieties in these two countries through the levelling of minority variants (Hickey 2003; Trudgill 2004). And yet, Australia does display a certain amount of regional variation (a Sydneyite may usually tell a speaker from Perth or from Cairns). For example, much debate has been going on for three decades about the specific length of /æ/ in Melbourne or even about a phonemic opposition between /æ/ and /æː/ (Blake 1985; Bradley 1991, 2008; Cox and Palethorpe 2004). A feature of contemporary AusE that is not subject to variability is its non-rhoticity, although evidence of historical variable rhoticity among six male Australians (born between 1889 and 1899) was analysed by Trudgill and Gordon (2004) and re-evaluated by Lonergan and Cox (2008).

The ways in which rhoticity is described in the literature differ inasmuch as this phenomenon can be interpreted differently from a theoretical point of view. We will not have the opportunity to discuss this issue at length here and prefer to refer to Navarro (2013) and Viollain (2014). We can basically define the distinction between the two major families of varieties of English as follows: on the one hand, in non-rhotic varieties, /r/ is never realised when it is not in the onset of a syllable, i.e. words such as car, cart and party do not have an [ɹ], whereas rat, carry, train and flowering do. On the other hand, in rhotic varieties, /r/ is realised in both the onset and the coda of a syllable, therefore car, cart and party have an [ɹ] in these varieties. What is more, non-rhotic varieties are distinguished by the fact that an [ɹ] can be pronounced when a word ending with an etymological -r- is followed by a word beginning with a vowel: that is what is called “linking r”, as in the car[ɹ] is in the garage. In rhotic varieties of English, such a phenomenon cannot be observed as an [ɹ] is always pronounced in coda position. Even though AusE and NZE are described as non-rhotic varieties of English, the exception of Otago and Southland in New Zealand has been commented on (Wells 1982; Bartlett 1992) and coined the “Southland Burr”.

However, recent research has not particularly focused on this phenomenon and its parallel evolution in NZE and AusE. The data from several Australian corpora point to the fact that rhoticity was brought to Australia both by speakers from the south of England, as the process of R-dropping (Wells 1982) was not completed in England in the second half of the eighteenth century, as well as by speakers from Scotland and Ireland. A similar report is presented by Gordon et al. (2004) for NZE, given that most speakers from the Mobile Unit are rhotic, even though very often variably. Nonetheless, in NZE, rhoticity survived in the southernmost regions of the South Island whereas, in Australia, rhoticity was completely lost when the new focused Australian variety emerged. This difference is mainly due to the fact that rhotic variants were majority variants in the Scottish settlements in Otago and Southland (Bauer 1997, Trudgill 2004; Gordon et al. 2004).

Our ambition is to determine, on the basis of the PAC-NZ corpus, whether rhoticity can still be observed in Otago or is recessive and possibly influenced by the non-rhotic norm of General NZE. We want to determine whether our 13 informants are consistently rhotic, non-rhotic or if they display a semi-rhotic (variable) system. In order to do so, we added an additional task to the PAC protocol, i.e. 14 short sentences to provide further relevant items (Viollain 2014). Besides, the basic lines of PAC recommendations on coding systems.
(Durand et al. 2014) were adapted to our particular needs and a specific coding system was created for our corpus (see Viollain, 2014: 333-334). This coding system (Table 2) was applied to each and every recording in the PAC-NZ corpus, in other words for every informant in every task. It is based on numerical symbols that are positioned after the orthographic <r> along the following lines:

Table 2. Coding system for variable rhoticity in the PAC-NZ corpus

<table>
<thead>
<tr>
<th>3 compulsory fields</th>
<th>[3]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realised vs. non-realised (1 or 0)</td>
<td>[]</td>
</tr>
<tr>
<td>In initial (onset) vs. in non-initial (rime) syllabic position (1 or 2)</td>
<td>[]</td>
</tr>
<tr>
<td>Followed by word boundary (#), C[^1]-n# or C[^1]-nV# (1, 2 or 3)</td>
<td>[]</td>
</tr>
</tbody>
</table>

1 optional clue: if <r> followed by a word boundary (1 in field 3), Next word starts with a vowel, i.e. case of “linking r” (1)
Next word starts with a consonant (2)
Coded word constitutes the end of a prosodic unit (3)
(1, 2 or 3)

Examples
r\[^1\]1ed gar023den
wher\[^1\]211e is it?
It is her0213e

On the basis of this coding system, 13049 tokens were manually coded, 8661 of which correspond to an /r/ in non-initial (coda) position. However, these /r/s include linking-r contexts that are not part of rhoticity but, on the contrary, indicate that the variety under scrutiny is non-rhotic. One should indeed be careful with the results that quantitative coding systems provide as they do need interpretation and should not be taken for granted (Durand, Navarro and Viollain 2014, 2015; Viollain 2014). Only the following contexts (Table 3) can be considered as indicative of rhoticity in the speech of our informants:

Table 3. Contexts of rhoticity in the PAC-NZ corpus

| \[\]^C\[^1\]-n# | (before one or more consonants at morpheme boundary, as in farm) |
| \[\]^C\[^1\]-nV# | (before one or more consonants and one or more vowels at morpheme boundary, as in forty) |
| \[\]^#_C | (before another word starting with a consonant, as in for me) |
| \[\]^#_## | (before a pause, for example end of prosodic group, as in See you later!) |

The following graph (Fig.1) displays the rates of realisation of /r/ in all contexts for all informants in every task of the PAC-NZ recordings. Rhoticity appears to be residual,
except for two informants, BM1 and LB1, who seem to display variable rhoticity, or inconsistent, unstable non-rhoticity. These two speakers produce a significant proportion of [ɹ]s before a consonant at morpheme boundary or before a consonant and one or more vowels at morpheme boundary. They do realise a significant proportion of [ɹ]s when an -<r>- is followed by a word starting with a consonant or at the end of a prosodic group. We interpret these rates of production as showing that non-rhoticity is stable among a majority of our informants but that BM1 and LB1 are in the process of derhoticisation as they still variably realise [ɹ]s in contexts where they are never realised in non-rhotic accents. They are, therefore, in the process of becoming non-rhotic. We do not have the opportunity here to go into further detail on the tasks that favour the realisation of an [ɹ] and on the vowel qualities that contribute to the maintenance of an [ɹ] for BM1 and LB1 (see Viollain 2014 for an exhaustive analysis). What we can say is that these two speakers show the mirror image, in terms of rates of production and vocalic contexts favouring the maintenance of an [ɹ], of what is happening for Bostonian informants (see Viollain 2010, Navarro 2013) who are picking up rhoticity, and therefore becoming rhotic.

Fig. 1 Rates of realisation of /r/ in all contexts for all the informants in the PAC-NZ corpus

What we can also say is that our data confirm that there is some rhoticity, be it variable, in the Otago region. Our data also suggest that this rhoticity is recessive, as only two of our informants display this phenomenon and as their rates of realisation of an [ɹ] in contexts where they are never pronounced in non-rhotic accents are relatively low. We can infer that, with the mobility and the means of communication that characterise modern societies, and the southernmost parts of the South Island of New Zealand for that matter, rhoticity is being lost in favour of the New Zealand non-rhotic standard through a process of levelling. Non-rhotic General NZE would then appear to be gaining ground in the South and we can expect the Otago and Southland regions to become consistently non-rhotic in the future. A similar process of derhoticisation is documented by Stuart-Smith et al. (2014) in Scottish English that supports the view that derhoticisation is a natural process in varieties of English. This was also undergone by “English English” probably starting in the eighteenth century (Wells 1982). We see again here how slight differences in the colonial population mix in Australia and New Zealand can have major
phonological consequences as it appears that the southernmost parts of the South Island of New Zealand are only in the process of derhoticisation whereas this process has long been completed in Australia and other parts of the world, notably the south of England.

We now consider the parallel evolutions of NZE and AusE as far as the short front vowels of KIT, DRESS and TRAP are concerned.

6. Reconsidering AusE and NZE short front vowel chain shifts

Martinet (1955) was the first linguist to acknowledge that simultaneous (synchronic) or consecutive (diachronic) changes may occur in the phonological characteristics of the vocalic system of one variety of a language and to theorise these changes. Indeed, one vowel may move towards the acoustic space of another vowel, consequently “threatening” the margins that maintain inter-vocalic contrasts within the system and, in turn, forcing another vocalic sound to move (Samuels 2006; Langstrof 2006; Cox 2012). Labov (1994: 117) claims that “chain shifts reflect the functional economy of the vowel system: vowels move together, i.e. with one another at the same time, to avoid merger and preserve their capacity to distinguish words.” Gordon and Maclagan (2001) argue that if the vocalic system does not adjust to change, some contrasts may be lost (such as in the NEAR/SQUARE merger in NZE)\(^{18}\). Vocalic changes in Southern Hemisphere Englishes, i.e. in NZE, AusE and South African English, are often cited as evidence for chain shifting (e.g. Bauer 1986; Cox and Palethorpe 2001; Labov 1994; Langstrof 2006; Watson et al. 2000). Evidence from recordings of the first speakers of NZE and speakers from the following generations of New Zealanders that have been analysed by the ONZE project (see Gordon, Maclagan and Hay 2008) suggests that the front vowels have undergone a chain shift. During the second half of the nineteenth century and the twentieth century, experts have observed the following changes: the vowel of the TRAP lexical set has raised and become an open-mid vowel (/ɛ/); that of the DRESS lexical set has become a vowel between close-mid and close (/ɪ/ or /ʏ/) and therefore almost taken over the acoustic space of KIT. The vowel of the KIT lexical set has become a centralised vowel (/ɨ/ or even /ə/).

A priori, such a change can be interpreted in several ways. It could be a “chain shift” in the sense of Martinet (1955) or of Labov (1992) and, if so, it could be analysed in two different ways. It could, on the one hand, be a drag chain shift created by the KIT vowel moving initially out of its slot and creating a vacuum whose filling in causes a change of specification for all other front vowels. On the other hand, it could be a push chain shift resulting from the moving of the TRAP vowel closer to the DRESS set, hence setting up a crowding effect on all front vowels and forcing them to change their value over time. Or, as pointed out by Hay et al. (2008: 264), it could also be that “the changes just happen independently of one another and are not causally connected at all.” In any case, King (1969: 4) warns that the issue of push or drag phenomena “is an empirical question, and the facts of the matter are that numerous cases of co-varying shifts are attested in various languages of the world.” These three hypotheses on vocalic chain shifts may be summarised with respect to NZE in Table 4:
Table 4

<table>
<thead>
<tr>
<th>Push chain hypothesis:</th>
<th>Drag chain hypothesis:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1: a high TRAP vowel was brought by European settlers the TRAP vowel rose over the second half of the 19th c. Stage 2: in turn, the DRESS vowel rose, encroaching on the acoustic space of KIT Stage 3: the KIT vowel lowered and centralized, almost merging with /ə/ Stage 4: the DRESS vowel kept on rising, crowding the FLEECE vowel</td>
<td>Stage 1: the KIT vowel lowered and centralized, almost merging with /ə/ Stage 2: consequently, the DRESS vowel rose, taking over the initial acoustic space of KIT that was left empty Stage 3: in turn, the high TRAP vowel that had been brought by European settlers rose even more Stage 4: the DRESS vowel went on rising, crowding the FLEECE vowel</td>
</tr>
<tr>
<td>Co-varying scenario:</td>
<td>The changes happened independently without being causally connected</td>
</tr>
</tbody>
</table>

Experts have defended both chain shifting hypotheses (Watson et al. 2000 for drag chain; Gordon et al. 2004 for push chain). However, today there is general consensus on the push chain shift hypothesis, especially on the basis of Langstrof (2006, 2009) who has shown that the speakers of the Intermediate Archive (ONZE project) have a very high TRAP vowel, a high DRESS vowel but a KIT vowel only starting to lower and not at all centralized, whereas the contrary (i.e. speakers with a fully centralized KIT vowel, a very high DRESS vowel but a TRAP vowel only starting to raise) is not observed. NZE as well as AusE, in which KIT has not centralized under the pressure of TRAP and DRESS but risen towards FLEECE, provide evidence for the existence of push chain shifts that had been questioned or even dismissed in the literature (King 1969; Samuels 2006). Whatever the scenarios, it has been argued that the START vowel may have played a part and even have been the initiator of the push chain shift in both varieties. The data from the PAC-NZ corpus, as well as other corpora on NZE, do not support this hypothesis, whereas in AusE, the centralisation of START may well be linked, in a drag chain shift, to the raising of TRAP.

Moreover, Cox and Palethorpe (2008) have recently considered a reversal in the Australian push chain shift. Relying on an acoustic analysis of new data (thirty female students from the Sydney area, all General AusE speakers), they documented the view that the TRAP vowel lowered and retracted from the 1960s to the 1990s. In the last fifteen years or so, /æ/ is acknowledged to have lowered again to a more open position among young informants while /e/ and then /i/ have lowered too. Cox and Palethorpe (2008: 345) comment that this recent process gives “an interesting insight into the interrelated
nature of vowel shifts” as two overlapping stages seem to be related in a twofold type of chain shift: raising first occurs as a result of a push chain shift while a drag chain effect leads to lowering when stage one has not yet been completed.  

43 Many models, formulated within the framework of Exemplar Theory (Pierrehumbert 2001), have put forward the hypothesis that the evolution of the short front vowels in AusE and NZE is contingent on speaker interaction. Indeed, this framework argues that speakers store (in their memory) clouds of exemplars of words along with phonetic and sociolinguistic information that are constantly updated as speakers interact with other speakers. According to these models, the closest realisations of dress become the fittest variants, i.e. those that are most able to signal the contrast between dress and its neighbouring vowels (trap and kit), which can account for the continued raising of dress as trap became closer in AusE and NZE. The different outcomes in AusE and NZE for the push chain shift (raising vs. centralisation of kit respectively) can be explained on the basis of the different interactions and the different strategies that the speakers of both communities have entered in and put in place. We refer to Viollain (2014) for further detail on this issue.

44 Our own strategy of analysis is obviously on a small scale (16 speakers) but it has aroused new and interesting analyses within the PAC program (see Viollain 2014). A comparison was therefore launched with previous analyses by Bauer and Warren (2008), Cox (2004) and Cox and Palethorpe (2007, 2008). This article provides the state of ongoing work. Sixteen key speakers were selected from the PAC-AUS and PAC-NZ recordings: eight Australians (23-59 years old, three male / five female speakers) and eight New Zealanders (19-76 years old, four male / four female speakers).

45 The following method of analysis was used: vocalic targets were selected in line with Cox (2004), Meunier and Nguyen (2013) and Baranowski (2013). Targets were manually segmented and the consonantal contexts were chosen so as to be less susceptible to alter the vowel quality of the target. Only data in citation form was used for the analyses (Wordlists 1 and 2 of the PAC protocol). The data was sampled at 20 kHz / 16 bits. The sound signal was aligned with a Standard Orthographic Transcription using PRAAT. Only F1 and F2 were retained for analysis. The contexts of occurrence of the short front vowels (starting with 1. pit, 2. pet, 3. pat in our wordlist 1 were as follows: monosyllabic word, closed syllable, voiced and voiceless bilabial plosive as onset, voiceless alveolar plosive in coda (as the PAC wordlists do not include /h-d/ contexts which are identified in the literature as being neutral). The formant frequencies extracted were not normalised (see Viollain 2014 for normalised results on the vowels of the PAC-NZ corpus). As we suggested earlier, the results presented here are part of larger work in progress and acoustic analyses are only beginning to be developed within the PAC program. We compared data from Cox (2004) and Przewozny (2003) for AusE, then from Bauer and Warren (2008) and Viollain (2014) for NZE, and eventually we compared our results between AusE and NZE within the PAC database itself. The results are presented below (figs. 2-5). Each lexical set (kit, dress and trap) appears in a specific color (blue squares, green circles and orange diamonds respectively) in the following diagrams. F2 is presented on the x axis (horizontal) and F1 on the y axis (vertical) as is usually the case in phonetic publications. The results for Australian female and male speakers appear first (figs. 2 and 3) and are
followed by the results for the New Zealand female and male speakers (figs. 4 and 5), which should allow for an easy visual comparison.

Fig. 2 Individual formant values (F1, F2) for Australian female speakers (PAC-AUS corpus)

![Graph showing individual formant values for Australian female speakers](image1)

Fig. 3 Individual formant values (F1, F2) for Australian male speakers (PAC-AUS corpus)

![Graph showing individual formant values for Australian male speakers](image2)
Figures 2 to 5 show that the values for the Australian kit, dress and trap vowels are different from those of the New Zealand speakers. We observe that the Australian vowels, for male and female speakers, form a system with three degrees of height: kit is the highest vowel, dress appears as a mid-close vowel and trap as a mid-open vowel. On the contrary, the New Zealand vowels, for both male and female speakers, seem to form a system with only two degrees of height. Dress is the highest, closest vowel, and trap and kit are on the same level, with trap being a front vowel and kit a centralised one.

To a certain extent, they confirm some of our previous impressionistic (auditory) analyses of the PAC corpora. Kit shows some degree of centralisation among New Zealand speakers and, more precisely, younger speakers have a lower and more centralised vowel than older speakers who have closer and fronter realisations. The values presented by Bauer and Warren (2008) are different from the ones we observe in our informants.
Indeed, they have a more centralised Kit vowel than our informants do and a closer Trap vowel than most of our informants do. On the contrary, their Dress vowel is as close as our informants’ or even lower than some of our informants’. This could point to the fact that the Dress vowel has raised extremely rapidly in NZE over the last decades, threatening the acoustic space of Fleece. We note that the quality of the Dress vowel (in green) among the New Zealand speakers is quite close to the quality of the Australian Kit vowel (in blue), which is also said in the literature on this variety to be threatening the acoustic space of Fleece. In the same way, we can see that the quality of the Australian Dress vowel (in green) is quite close to the New Zealand Trap vowel (in orange), which confirms that Trap and Dress are very close in NZE, even more than in AusE.

As far as Australian vowels are concerned, the individual mean values for F1 and F2 confirm that the older female informant AR1 (aged 59) presents raised short front vowels. Compared to AR1, SR1 (aged 55) consistently presents lower vowels. It may be of interest to note that SR1 is the only Cultivated AusE speaker from the sample under study (living in Northbridge, as AR1 does). Our results for our Sydney (Northbridge) informants under 30 match Cox and Palethorpe’s data (2008), as ER1 and CR1 (aged 27 and 23, both General AusE speakers) present a lowered and retracted Trap vowel. But their Kit and Dress vowels provide no clue to any lowering in the vocalic space. KB1, a 40-year old female General AusE speaker from Deniliquin, NSW, follows CR1 and ER1’s pattern, although the mean values for her Trap vowel show less lowering. As for male speakers, their short front vowels are consistently lower than Cox and Palethorpe’s mean values, but probably without any clear-cut F1/F2 difference between the informants if we consider the age of the speakers (PP1 is 40, LB1 is 49 and SR2 is aged 59) or their regional origins within New South Wales (SR2 is from Sydney, Northbridge, LB1 is from Deniliquin and PP1 from White Cliffs). Still, it is worth observing that PP1’s Trap vowel is indeed comparatively lower than his older fellow informants.

As for NZE, we note that the values presented by Bauer and Warren (2008) on the basis of the study conducted in Dunedin by Watson et al. (2000) do not exactly match the values of the vowels realized by our New Zealand speakers. Indeed, Trap and Dress are closer in Bauer and Warren (2008) and Kit is lower and more centralised than what we find among our speakers. The systems of our New Zealand speakers consequently appear to be crowded as many items of Trap and Dress, Dress and Kit, and even Trap and Kit overlap in the acoustic space (Viollain 2014 and Viollain to appear, for more detail on “generational encroachment”). This is indicative of a change in progress, which means that the short front vowel shift in NZE is not yet completed and that the Dress vowel may well continue to rise in this variety while the Kit vowel may never reach a fully centralised position.

7. Conclusion

This article presents a first, and therefore tentative, comparative analysis of AusE and NZE, seen as two distinct linguistic objects in motion, both within the PAC program and with other Australian and New Zealand corpora and studies. Our aim was to provide a dynamic portrait of these varieties of the southern hemisphere with the help of authentic data. We questioned the traditional representation of AusE and NZE as a single frozen system having undergone the same historical and sociological development all along the
nineteenth century and well into the twentieth century. This frozen description led to a fallacious hierarchical system with NZE subsumed under AusE in their comparison to RP.

51 One of the main issues here was to provide new authentic data and analyses about the lack of variation that is often taken for granted in AusE and NZE. Given that AusE and NZE are usually presented as stable non-rhotic varieties of the British stream of English, we chose to question this traditional definition using our PAC-NZ corpus. In Section 5, we gave evidence of variable and recessive rhoticity from Dunedin, Otago.

52 A limitation to our analysis of vowel chain shifts in AusE and NZE (Section 6) is the technical limitation of our preliminary analysis of target vowels. Another one is that this study needs to be widened in terms of tokens and number of informants. This is done in Viollain (2014) for NZE, and will be done in 2017 for AusE with the data from a new PAC survey in New South Wales. Our preliminary results globally match those of Cox and Palethorpe (2008) and Bauer and Warren (2008) since they are indicative of a reversal in chain shifts among our young adult speakers of AusE and of a change still in progress among young NZE adult speakers. Surely, more information is needed to provide a thorough analysis of these short front vowels. This will eventually help to test the scope of what Cox and Palethorpe (2008: 345) call “the seeds of change” and their possible consequences for the phonology of contemporary AusE (Cox 2012) and NZE. This will also enable us to document impressionistic hypotheses on the regional variation of short front vowels in AusE and NZE.

53 Nowadays, no conventional or frozen globalised description of AusE and NZE is acceptable any more. New corpora allow linguists to reconsider the depth of distinctiveness between these two varieties. Authentic oral data compel us to objectively demonstrate how two dialects of English with similar contexts of settlement may differ in their systems and vary in their evolution. Whether in terms of rhoticity or short front vowel chain shifts, which are of course two major arguments for distinctiveness, AusE and NZE are not homogeneous nor are they undergoing the same phonological evolution.

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http://andosl.rsise.anu.edu.au/andosl

AusTalk – An Audio-visual corpus of Australian English  
https://austalk.edu.au

Australian Bureau of Statistics  
http://www.abs.gov.au

Australian Voices  
http://clas.mq.edu.au/australian-voices

ONZE – The Origins of New Zealand English Project  
http://www.lacl.canterbury.ac.nz/onze

PAC – Phonology of Contemporary English : usage, varieties, structure  
http://www.projet-pac.net

Praat (Version 5.3.84) may be downloaded at  
http://www.praat.org/

**NOTES**

1. This paper was originally presented as a talk at the 17th ALOES conference on Oral English, 4-5 April 2014. We are indebted to Jacques Durand for his most valuable comments on an earlier draft of this paper, as well as to two anonymous reviewers for the final version of this article.

2. Sinclair (1986: 96 in Gordon et al. 2004: 64) mentions the very different number of letters sent from New Zealand (more than four letters per inhabitant) and Australia (only one letter per inhabitant) to the United Kingdom to exemplify the distance taken by Australia with the Mother country.

3. Przewozny (2016 in press) for a discussion of some dialectological and sociolinguistic consequences
6. In the Australian context, for example, 63,000 convicts were transported to New South Wales between 1788 and 1830, for only 14,000 free settlers (Nadel 1957: 8). Transportation was ended in 1868.
8. It is “a process where, in a mixture of different dialects, different variants are leveled out and a single, new, focused dialect arises which is different in some ways from all the input varieties” (Gordon et al. 2004: 77).
9. 1830 was the key year when linguistic mobility between New South Wales, Victoria and Moreton Bay came to an end.
11. His major monograph The Australian Language was published from 1945 onwards.
13. See Durand and Przewozny (2012, 2015), The PAC programme is now in its twelfth year. It is coordinated by Philip Carr (Montpellier 3 University), Sophie Herment (Aix-Marseille University), Jacques Durand and Anne Przewozny (Toulouse Jean Jaurès University). A dynamic presentation of its methodological and theoretical principles, protocol of survey, samples and thematic projects may be found at www.projet-pac.net
14. Out of these, 19 varieties of English are described and studied in Brulard, Carr and Durand (2015).
15. The term “social classes” should not be taken for granted (for the Australian context, Przewozny 2016 in press; see also Tarrier et al. to appear). Among the issues at stake is the scope of traditional social classes in contemporary urban contexts in the light of linguistic, sociolinguistic, sociological, interactionist and psycholinguistic issues.
17. A lively way to observe Australian dialectal variation all over the country is to check the web facilities proposed by the Australian Voices project at http://clas.mq.edu.au/australian-voices
18. For lack of space, we refer to Viollain (2014) for thorough examination of this issue and of its consequences for the description and theorisation of the origins and evolution of NZE.

ABSTRACTS

Australian English (AusE) and New Zealand English (NZE) are two originally “transported” Englishes in the Southern hemisphere. Although there is currently no doubt among the scientific community that they constitute two distinct dialects of English with their own lexical, morphosyntactic, phonological and phonetic features, their description and representation have long been frozen into a unique “Australasian” dialect, in spite of an enormous amount of endocentric linguistic descriptions emerging in the second half of the twentieth century. AusE and NZE being amongst the latest varieties to have emerged in the English-speaking world, they have only recently been extensively studied and considered as valid research objects by the scientific community. In this article we first consider some historical arguments that eventually
led to a misleading descriptive hotchpotch of AusE and NZE. This situation scarcely left any room for the possibility of specific phonological and/or phonetic variation within each variety, let alone the description of AusE and NZE as two separate linguistic entities in Australasia. After reconsidering a few parallel historical facts, common critical denunciations and lay theories on the origins of the two Austral varieties, the article focuses on the representation of AusE and NZE in the literature on the phonology of English accents around the world. With a view to contribute to the definition of AusE and NZE as linguistic objects in motion and to promote a dynamic portrait of each variety, we then provide contemporary oral data from the PAC programme as well as comparative analyses in favour of two major arguments for distinctiveness between AusE and NZE: rhoticity in NZE as well as the short front vowel shift in both AusE and NZE.


INDEX

Keywords: Australian English, New Zealand English, phonology, PAC program, rhoticity, short front vowels, chain shifts
Mots-clés: anglais australien, anglais néo-zélandais, phonologie, programme PAC, rhoticité, voyelles antérieures brèves, changements en chaîne

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