SHADES OF BROWN:

Standard Scottish English in a Received Pronunciation World

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Acknowledgements

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1. Introduction

Writing this introduction has finally forced me to realize the apparently haphazard and outwardly extensive scope the project in hand. Hopefully, by the conclusion, I will have been able to mirror the meandering, leisurely path of language in its development.

The meandering of this paper begins, appropriately enough, at the beginning. Chapter 2 offers a thorough background of five distinct aspects. I will begin describing the development of the English language. Thus sections 2.1. and 2.2. provide the foundation for highlighting the differences and similarities with respect to Gordon Brown's own tongue. As a counterweight, section 2.3 explores the less well-known development of Scots and Scottish Standard English. The third aspect is addressed in sections 2.4.-2.6. I shall discuss different approaches to the study of accent and language, to establish the parameters and provide a sociolinguistic perspective. With the focus now primarily on phonology, the fourth aspect (sections 2.7-8) aims to complement the narrative history with a more detailed look at the phonological history that accompanied it, before focusing on the contrasts between Scottish Standard English and Received Pronunciation. To conclude chapter two, I have provided a brief biography of my unwitting subject. The third chapter charts the course I took in reaching this point, the writing of the essay. I explain my motives and methods, before Chapter 4 presents the data itself. It is divided into four sections, each addressing a different phonological feature distinguishing RP and SSE. The features that I will analyze are relatively modular, so I hope to reintroduce elements from the background research into the discussion of the results in Chapter 5. Chapter 6 provides a rather philosophical conclusion.

2. Background

Britain owes its huge variety in dialect and accents to its rich and fascinating history. I will give an explanatory overview looking at the significant events that lead to the three main Englishes involved in this project: RP, Scots and Standard Scottish English.

2.1. Early History of British English

Even as the Romans departed the British Isles circa 410 C.E., the initial forces behind the development of English were making their presence felt. At that time, the Roman commander with responsibility for the south of (what would become) England was titled the "Count of the Saxon Shore," (Upton and Widdowson, 2006) foreshadowing the complete control of the area by the Saxons. The Angles and Jutes accompanied them. The former, hailing from modern Denmark, predominantly occupied territory in the east and up through the midlands to southeast Scotland. The Jutes controlled small areas in the south. The Saxons were different, lacking tribal unity beyond their shared "seaxes" or long bladed knives. They are thought to have originated in the coastal areas of both Germany and France. Settlement of the south and southwest fell to their lot. This leads to the traditional start date of Old English (OE) at 449 A.D, as the Germanic invaders grew in strength of numbers and power. At this stage, the native population, called "wealas," meaning "foreigners" in Anglo-Saxon, were driven west where they would eventually become known as the Welsh.

As such, the development of Old English began in this pool of related but distinct dialects and cultures. Upton and Widdowson paint a great picture of the situation: there was "a small group of armed farming families, perhaps separated from other similar settlements by many miles of forest or fenland. All or most of the inhabitants of one community would be drawn from one small of the northwest European seaboard." Linguistic and cultural norms grew in these local developments, hindered by these scattered tribal power bases and minimal literacy. By the time Augustine arrived to spread the Christian message, and with it, education and literacy in general, the geographic variety of dialects of OE had settled, and with it, the legacy of today's dialectal diversity.

This slight movement toward standardization, at least in the literate classes, was both disrupted and aided by the Viking arrival at the turn of the 9th century. The Anglo-Saxons were by now local, and were driven to greater unity under the common threat of presented by the Vikings. Thus Alfred (the Great, of burnt cakes fame) is considered the first King of the Anglo-Saxons, having inherited only the monarchy of Wessex (or the West Saxons). Thanks to his ability to stave off total Viking invasion, the culture and language of the kingdom of Wessex became integral to English identity. Despite this happy uniformity, the Danelaw kingdom of the Vikings established in the north and east brought Old Norse and Old Icelandic into the melting pot of dialects already in play. These newer linguistic influences were still related to the original Germanic progenitors of OE but are still felt in the place names and dialects to this day.

2.2. History of Modern English, particularly RP

If there was any chance for these two semi-independent and semi-uniform (?semi-form?) linguistic areas to calcify, it was not long before there was yet another linguistic upheaval. In 1066, the Norman influence on OE was formalized. There had been some overlap in court affairs beforehand, but the sweeping arrival of William the Conqueror's new regime brought with it French as the new prestige language. Middle English (ME), which begins in the first half of the 12th century, presents a sharp break from OE. French's Italic parentage brought a new problem: unlike the many Germanic languages up to this point, there could be no mutual intelligibility. Thus as Norman French became the ruling language across the nation, and with it all large-scale trade ventures, English settled down again to a local fermentation of dialects. Latin also held prominence in the literature of science, philosophy and theology. It is important to note, however that Norman French and Latin were very much minority languages. Speakers of any English today maintain traces of the Romance language, but "English was the language of the village and the workplace, used by the majority, the ordinary and largely unlettered people" (Upton and Widdowson, 2006). As with OE, since ME was mostly a spoken language, there was much less need for uniformity.

However, within 300 years, the tide was turning back in English's favor. The autonomy of the ruling class in England led to a deterioration of continental ties, and particular antagonism towards France. This trend culminated in the 116 year long Hundred year's war between the House of Valois and the House of Plantagenet in 1337 C.E. By 1362, for the first time, the king's speech in parliament was presented in English.

Concurrently, literature grew in popularity, with Chaucer and the Gawain Poet, promoting a more standardized English. Similarly international trade began to massively increase, indicated by the growth of professional guilds in London and throughout Europe. For example, such shifts as the standardization of weights and measures by the Worshipful Company of Grocers in 1428 are representative to the cultural standardization, hand in hand with changes in linguistic attitudes. However, it still holds that these changes did not alter the quotidian, majority approach to English.

A shift here required cultural movements. The Renaissance brought with it the growth of the University. Advances in education fostered greater language uniformity by offering the possibility of intellectual analysis of language and literature. The second movement revolutionized the spread of such literature. The printing press played an enormous role in making texts available to a much wider audience, principally the Bible. But its inventor, Caxton, compared the English of the day to the moon "which is never stedfaste/but ever Waverynge/wexynge one season/and waneth and dycreaseth another season" (In Trudgill, 1984). Contemporary arguments highlight the concern surrounding a standardized English. *The Arte of English Poesie*, written by George Puttenham in 1589 proscribes to the budding poet that "Neither shall he take termes of Northern-men such as they use in dayly talke, whether they be noble men or gentlemen, or of their best clerkes all is a matter" (In Upton and Widdowson, 2006).

Scholars place the transition between ME and Modern English at around this period, though the differences are not nearly so easily distinguishable as the OE/ME shift.

As can be expected, even up to the present day, there was no definite consensus on the nature of a Standard English. Puttenham called for "the vsuall speach of the Court, and that of London and of the shires lying about London within xl miles, and not much above." Later, Samuel Johnson's Dictionary brought with it a "notion of correctness, of a preferred form for words and syntax." His contemporary Swift, in a letter to the Earl of Oxford, concurred, stating:

"But what I have most at Heart is, that some Method should be thought on for ascertaining and fixing our Language for ever, after such Alterations are made in it as shall be thought requisite. For I am of Opinion, that it is better a Language should not be wholly perfect, that it should be perpetually changing."

A Proposal for Correcting, Improving and Ascertaining the English Tongue (1712)

Perhaps Simon Elmes, who worked with the BBC to amass the *Voices* project recording many of the dialects found across the country reflects the trend away from such a prescriptive and descriptive attitudes to dialects. As he says in his introduction, "The more diversity, the happier I am" (Elmes, 2005). His views reflect those of his precursor in the descriptive world, though preemptively: "There can be no doubt that pure dialect speech is rapidly disappearing, even in country districts, owing to the spread of education and to modern facilities of intercommunication," (Joseph Wright, in *The English Dialect Dictionary*, 1898).

RP itself is thought to have derived from midland accents, those in the region immediately north of London, during the period of massive urban migration from the Renaissance forward. Elmes (2005) states that Bedfordshire, Huntingdonshire and Northamptonshire were the original well springs for what would become RP. This conflicts with the reverse-engineering theory that locates it in the South, often Berkshire,

Oxfordshire, and Hampshire. Having then become standard in London, RP evolved

beyond geographic descriptors. Instead it became tied to social status. In its capacity as

an accent of the so-called "upper classes" it was represented all over the country thanks

to Britain's landownership demographics. The number of speakers of RP peaked in the

first half of the 20th Century. The creation and constant expansion of recorded media

outlets, coinciding with a strong and popular monarchy using the accent led to the two

other titles for RP, "BBC English" and "The Queen's (or King's as appropriate) English."

In the late 19th Century, RP therefore became calcified. A. Burrel wrote, "It is the

business of educated people to speak so that no-one may be able to tell in what county

their childhood was passed" (*Recitation. A Handbook for Teachers in Public Elementary*

School, 1891). It therefore became the accent of the highest status socially, politically,

and academically. Briefly during World War II, the BBC broadcast radio items in

regional accents to differentiate legitimate transmissions for German propaganda. This

move presaged the post-war shift away from RP in many areas. Within the last 25 years,

the BBC has moved almost completely away from RP accents for its broadcasters,

preferring instead regional accents.

RP is continuously undergoing change. Indeed, Wells (1982) predicted

that "by the end of the century everyone growing up in Britain may have some degree of

local accent... or, instead, some new non-localizable but more democratic standard may

have arisen from the ashes of RP." It is true that accents such as Estuary English (in

1982, Wells calls it "London English") or Standard Southern English have become

prevalent. The strongest support for this is found in Harrington et al.'s study of the

Queen's English. The results of this analysis indicated that the vowel qualities of HRH's Christmas Broadcast had moved away from RP towards Standard Southern English. More recently, a study completed by the Guardian newspaper concluded that Yorkshire accents are treated with greater respect than RP, which is described as "dull and boring"[1]. Parliament retains an RP core thanks to the number of Members who attended Public Schools and Oxford or Cambridge Universities, but a regional accent is also no longer seen as remarkable - in fact it may be of benefit to the speaker. Baroness Thatcher had a number of non-RP speakers in her cabinet, notably Norman Tebbit, who spoke with a marked Essex (or Estuary English) accent.

2.3. History of Scots and Standard Scottish English

The development of language in Scotland has been somewhat different from the history in England, and yet thanks to the frequent interaction culturally, politically and therefore linguistically, it has not been left completely to its own devices. Indeed, the profession of my subject, Gordon Brown, underscores the close interaction between the two states.

It was not always the case. Despite the fact that Anglo-Saxon invaders captured the city of Edinburgh, bringing with them their Germanic language variety, in the 7th Century C.E., just as they were doing south of the border, the divide was sufficiently early that Scots is a cousin of Standard English. This is made clearer by the language tree in Figure 1 below.

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[1] http://www.guardian.co.uk/uk/2008/apr/04/6

Indo-European

Germanic   Celtic   Italic

West   North   p-Celtic   q-Celtic   Latin

Old English   Frisian   West Scandinavian   East Scandinavian   Welsh   Cumbric   Old Irish   French

Anglian   West Saxon   Norn   Norwegian   Danish   Irish   Scottish Gaelic   Anglo-Norman   Standard French

Old Northumbrian   Mercian   Low

Anglo-Danish   East Midland   Dutch   Flemish   Low German

Middle English

Scots   Standard English

Figure 1: Genetic relationships amongst the languages and dialects mentioned in the text. These are also, of course, complex relationships of influence and borrowing (see §3).
Courtesy Caroline MacAfee A History of Scots to 1700 *http://www.dsl.ac.uk/SCOTSHIST/, taken from the Cambridge University Press*

Scots developed in the Anglo-Saxon kingdom of Bernicia, made up of areas of northeast England and southeast Scotland. Progressing along much the same timeline as Standard English, it faced pressures from the Gaelic speaking populations in the Highlands and rest of Scotland, and from the Viking Danelaw population on its southern border. Using evidence from place names and archaeology, the language community appears to have ceded its control of Northumberland to the Danelaw kingdom, and gradually began to exert more power further north (Macafee). Later Scandinavian influence on the language came from the Old Norse or Norn speakers migrating to the islands. However, the balance of the contact situations was with Celtic dialects. The pressure from the South was not as inconsequential, with large Danish settlements, for example throughout Cumbria in the southwest. Similarly, after the Norman Conquest, the nascent Scots dialect underwent some Norman contact influences. It was partially more robust due to the fact that the native ruling classes were predominantly preserved.

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Those who did migrate north of the border may have come from areas including Yorkshire, resulting in the Anglo-Danish sidetrack shown in Figure 1.

While Gaelic was the native language of the vast majority of the population, Scots became the language of the Court by the time of the Stewart family's reign in 1371. At this time it had the name *Inglis*, and only in 1494 did it begin to be called *Scottis* in apposition to the King of England's English. Scots had its strongest use and development during this period. However, upon the Reformation, Scottish political attitudes became more closely aligned with those of its contiguous neighbor. Its previous independence thanks to alliances with France and other continental states naturally waned in the due to the Catholic/Protestant divide. The newest version of the Bible conforming to Protestant codes was made by English speaking refugees in Geneva. English therefore suddenly had a place in almost every home in the country. It became the language of formality and solemnity, while Scots was left as the language of "lower intellectual pitch" (Murison, 1979). This was compounded by the arrival of the printing press, and the ease with which chiefly English literature could be disseminated. Furthermore, the Royal houses of both countries became more intimately entwined, until in 1603 James IV of Scotland inherited the English throne. Without a Scots translation, "the existing centre of Scots literature collapsed" (Häcker, 2002). Finally, following the Union of the Crowns, parliamentary union in 1707 resulted in all legislative bodies relocating to London. At this point, as Murison puts it, English became "the official language of the whole country for law, administration, education and church usage." Meanwhile, Scots was left bereft

of any real significance: "having lost spiritual status in the Reformation, social status at the Union of the Crowns, and political status with Parliamentary Union."

During the 18th Century, then, Scots literature became restricted mostly to poetry. Scots went into a massive period of decline. Local dialects grew in prominence, filling the "absence of a metropolitan standard and a national literary centre" (Murison, 1979). This remained the case until the aftermath of World War I, which saw the emergence of smaller nationalities, and with it the revival of a strong Scottish national identity. Hand in hand came a reevaluation of minority languages. Work began in the 1920s to restore Scots. Scots literature re-emerged through C.M. Grieve and the "Lallans," a group of poets in the 1940s.

Scots now has over 1.5 million speakers in Scotland, Northern Ireland and some areas of the north of England. It is classified as a "traditional language" by the Scottish government, and a "regional or minority language" by the European Charter for Regional or Minority Languages, as ratified by the UK.

Scottish Standard English has been described as a hybrid between RP and Scots. Häcker (2002) reflects that while "defining ScE is not only difficult, but it also inevitably implies a political statement," at the broadest level "its speakers draw in part consciously, but to a much greater degree unconsciously from two sources, Scots and the standard language of England." SSE traces its roots to the increased English political, social, educational and religious influence culminating at the beginning of the 18th Century C.E. The Scottish upper and upper middle classes began to experience what Häcker calls "a

Scottish linguistic inferiority complex." I shall discuss this in section 2.6. The general trend of greater English usage had three outcomes. In Edinburgh and Glasgow, the Morningside and Kelvinside hyper-corrected accents developed. More importantly for this project, a standard Scottish English which retained the major phonological features of Scots and the syntactic and morphological constructions of Standard English. The lexical items were predominantly derived from Standard English, though some borrowings did occur. Earlier, I said that Scots is a cousin of Standard English. SSE then, is the (rather incestuous) child of these two forms of relatives, inheriting traits from both. Crucially, its status is independent of its southern parent, which is viewed as a foreign accent in Scotland. This introduces my next topic, a discussion of what entails dialect and accent and their study.

2.4. Accent versus Dialect

In this section I shall look at attitudes and perspectives on the study of accent versus dialect in the field of linguistics, and which if any of those apply particularly to the study of RP and SSE. Wells (1982) states that accent is "a pattern of pronunciation used by a speaker for whom English is the native language or, more generally, by the community or social grouping to which he or she belongs." He goes on to extend this definition to include "syntagmatic (structural) and paradigmatic (systemic) interrelationships." This marginally contrasts with dialect, which he claims has two meanings. First is Reed's approach, rating a dialect above an accent but below a language, leading him to state that "languages normally consist of dialects" (*Dialects of American English, 1967*). Second, that dialects involve variation in all the areas of speech

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production: syntax, morphology lexicon *and* phonology. Upton and Widdowson agree, and interpret the current linguistic topography in Britain accordingly. While they title their work *An Atlas of English Dialects*, they acknowledge that "such leveling as there has been is most evident in standardization of grammar, and in erosion of obsolete sections of the vocabulary." This suggests that dialects are deteriorating, but they go on to claim that "regional speech, especially regional accents [have been left] relatively unscathed. Using these terms, then, it would appear that SSE is classified as an accent. After all, as I outlined above, it has the syntax, morphology and lexicon are essentially identical to RP, the Standard from of British.

Ronald Macaulay in *Locating Dialect in Discourse* (1991) takes a different approach. He claims that Trudgill and Chambers, by adopting the above interpretation, "get trapped into taking an extreme position." He quotes Hudson's view that "constructs such as 'language' and 'dialect' have little or no objective reality." In this project, it is important identify how an individual speaker interacts with this dialect definition. Saussure (1966) thought that a language "is not complete in any speaker; it exists perfectly only within a collectivity." For the Macaulay's speaker, "the potentiality of knowing [its features] is what constitutes the dialect." In order to accommodate variability within speakers, he concludes that any switching must be the result of a potentiality to use two or more dialects, rather than classifying the speaker as bi-dialectal.

It is clear that for Macaulay this essence of dialect is far more abstract. He looks for these salient features can be found in the Scots dialect of Ayr, which is the focus of

Macaulay's book, which has approximately 50,000 speakers at the time of writing. The main contrast with SSE is that the variables he analyzes exist across the range of phonology, syntax, lexicon, and morphology, rather than being limited to phonology. Possibly without realizing it, this approach to dialect is a modification of the theory he is so ready to snub. He himself has merely allowed potentiality to switch between the standard dialect (which presumably exists for all who have received education in that language) and the local dialect.

What, if anything, can we conclude from these approaches? It seems to me that SSE again finds itself in a hybrid position. It is both an accent, and therefore "below an ideolect (i.e. dialect)" (Wells, 1982) and a standard language in and of itself within the greater Scottish speech community, which means that it also qualifies as a dialect of sorts. If there is a continuum between accent and dialect, I propose that if SSE undergoes significant change through time, then it falls closer to the accent end, but if it resists, then it can be thought of more carefully as a dialect. In 1979, the latter prospect was already being proposed. MacArthur (1979), though clearly writing with a loaded agenda, wrote that contemporary discussions "indicate that Scottish Standard English has begun to be explicitly recognised (sic) and accorded a status which we have always suspected it should have." The discussions centered on the role of SSE as a language that "unlike any other British dialect except that of London, has won acceptance as the language of educated speakers outside the geographical area of its origin." Hopefully, the results of this project will help shed some light on this conceptualization.

2.5. Accent Change

Historically, as established above, RP has enjoyed a charmed existence as a prestige language. It wields an authority over other accents that has not basis in what is correct or incorrect. Instead, as Wells puts it, "it is considered appropriate for public use." It is the *original* Standard English. Any non-standard speaker immersed in a standard language environment was put under pressure (not necessarily consciously) to adapt and conform. Adaptation is by no means impossible. But "only a small minority can succeed in acquiring truly native-speaker like production." This is the perspective in 1982. However, times have changed. Estimates of the native speakers of RP have dropped from 10-11% to 3-4% (Trudgill, 1999). Modern Britain has shifted its attitudes towards accent such that RP can now be detrimental to advancement. This is thanks to its association with a much ridiculed "nice but dim" upper class, which is out of date in a desired meritocratic society. And we can see from Harrington's study that even the archetype of RP has changed the quality of her pronunciation with time. Southern Standard English, although closely related to RP, and Estuary English, which is further removed, have become more influential on speech patterns. Gordon Brown retains a recognizably Scottish accent.

However, a standard accent remains a standard accent, particularly in the traditional world of politics, with its focus on public speaking, and a population skewed towards remaining RP speakers. Indeed the most recent trend has seen a return of the RP accent to a position of prominence in the political sphere; David Cameron, Leader of the

Opposition, George Osborne, Shadow Chancellor, and Boris Johnson, the new Mayor of London are all old Etonians.

Generally, accent change in a speech community is considered to be driven by younger speakers. Thus with each new generation, the change incrementally increases. But for the speaker, Herzog and Weinrich, together with Labov, whose groundbreaking work opened the world of speech pattern analysis, require that participation in sound change is limited beyond a critical age. This is the basis for comparing the speech patterns of adults and adolescents within a speech community to determine the directions in which that community's accent or dialect is moving. If the adults' accents have themselves changed, the results are les significant. Other researchers, including Trudgill, have provided evidence that there is participation in community speech change throughout a speaker's life. Harrington, 2007, quotes Sankoff, who undertook a diachronic study of speakers of various dialects of English, who were recorded for a BBC documentary every seven years. She concludes that "phonology, even though stable in most of its features across individual life spans, is nevertheless available to some speakers for some amount of modification" (In Harrington, 2007[2]). But she does leave this caveat: "Even in considering the phonetic changes they have made, we must remember that neither has somehow made himself over linguistically, such that he would under any circumstance be taken as a speaker of a different dialect." I hope to show that this conclusion is correct.

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[2] Harrington's quote does not match the copy of her paper that I found for myself. However, in both instances the copies available were "in press" perhaps explaining this discrepancy.

2.6. Some Historical Views on SSE Accent Change

As we saw above in section 2.2., the development of English in the 17th and 18th Centuries brought out many advocates for its standardization (Johnson, Swift). It was also the case above the border. In fact the growth of SSE owes much to the popularity of adopting an accurate RP English accent, though it resulted from failure to achieve this goal. Sylvester Douglas in 1779 wrote his *Treatise on the provincial Dialect of Scotland* in which he lambasted the vulgarity of the Scottish English Accent, describing it variously as "barbarous," "defective," and "faulty." He claimed that "there are... few natives of North Britain, who have had occasion either to visit or reside in this country, that have not learned by experience the disadvantages which accompany their idiom and pronunciation." Walker, Perry and Kenrick, to name but a few of his contemporaries, also wrote guides for Scottish English speakers so that they might adopt the "present practice of polite speakers in the city of London" (Perry, 1776 Preface to *The Only Sure Guide to the English Tongue*). These opinions held fast until the revival of a strong national identity in Scotland in the 20th Century. Gordon Brown, however, faces a dilemma. He was a staunch supporter of devolution. Indeed, the first recording sample of this project is on the topic. As a result, now, as Prime Minister for the United Kingdom, most of his legislative powers operate solely in England. It is for this reason that his Scottish heritage and his Scottish constituency have become contentious. Therefore, beyond the requirements of "polite speakers," he has a political incentive to limit his native accent. The results of this project will indicate the extent to which these incentives may have played a part on his speech patterns.

2.7. RP Phonology

Since Middle English, RP has undergone 18 phonological changes to get to its present vowel and consonant system. 12 of these changes were approximately complete before 1750. The remained are termed by Wells as "British prestige innovations." I shall now give a short description of those changes Wells highlights to clarify the means by which RP evolved.

Phonological changes

- The Great Vowel Shift: in this process each long vowel moved one step higher, and the high long vowels diphthongized. The shift was complete by 1600, as it must have predated Shakespeare. The modern influence of this shift is found solely in orthography and morphology. In the North, the back vowels did not undergo the Great Vowel Shift.

- The formation of /ŋ/: While phonologists disagree as to the exact manner of the change, at some stage consonant clusters /Ng/ became /ŋg/. After deletion of the final stop, ([g] → ø / N_#) the current /ŋ/ ending was formed. Again, this shift was complete circa 1600. In Scotland, the rule applied not only word-finally, but also word-medially. Thus forms such as [sɪŋər] surface.

- The velar fricative /x/: In England, the fricative was either deleted or changed to /f/.   Thus in the orthography, we find *bough* and *cough*. In Scotland, this deletion/conversion did not occur; thus we still have *loch*.

- Monophthongization of /aʊ/: ME *law, ball, taught* originally surface with the /aʊ/: diphthong. During the 17th century, this became ɔ:

- The long mid vowel merger: /ɛ:/ and /ɛi/, /o:/and /ɔu/ merge to become /ɛ:/ and /o:/ respectively. These vowels then are diphthongized to become RP /eɪ/ and /oʊ/.

- Merger of /i:/ and /e:/ to /i:/, as in *peek, peak*

- Divergence of /ʊ/ and /ʌ/, from ME /u/ as in *put, putt*

- /Vr/ becomes /ɜr/, then /ɜ:/, (where V is short). such that *fur, fir, fer(vor)* share the same surface representation. This merger only partially occurred in Scotland.

- Pre-fricative lengthening: ME /a/ and /ɒ/ lengthen after a voiceless fricative. This results in the /æ/ versus /ɑ:/ and /ɒ/ versus /ɔ/ divides, as in *pat/path* and *lot/cloth*. This must have occurred by the 17ᵗʰ Century. This change did not occur in the North of England.

- /I/ or yod dropping: The diphthong /ɪu/ became /ju:/ which then was in many instances deleted when preceded by a consonant. In RP it is retained in some environments, and thus we have *lewd* and *tune* surfacing with a yod. In Scotland the yod was generally absent; the phonemes were already usually distinct thanks to the Scottish Vowel Length Rule.

- Rhoticity phonology: there were a set of changes that led to the eventual loss of /r/, and this was followed by the trend of "R-insertion," usually in locations where there was once a surface /r/ word finally, and the succeeding morpheme or lexical item was vowel-initial. Again, this change did not occur in SSE

- /ʍ/ (or /hw/) is replaced by /w/. This change had occurred by circa 1800. It did not occur in SSE.

- Weakening or elision of penultimate vowel in –*VCy* suffixes (e.g. *capillary* or *laboratory*)

This list of changes exposes the source for many of the phonological distinctions between RP and SSE, which I have detailed in the next section. The relative autonomy of SSE, most likely thanks to the physical cushion provided by the other dialects in between south Scotland and London, meant that the alterations affecting RP played a lesser role in SSE development.

I shall now briefly outline the vowel and consonant systems for the RP accent of English, along with some of its distinctive phonological features, in order to provide a basis for the changes that we see later in SSE.

RP Vowel	Example Usage
I	pit
e	pet
æ	pat
ɒ	cloth, lot
ʌ	putt
ʊ	put
ɑː	path, palm, part
ɜː	pert
iː	peace
eI	pace
ɔː	pause, north, force
əʊ	poach
uː	proof
aI	price
ɔI	poise
aʊ	pout
Iə	peer
ɛə	pear
ʊə	pure

RP Consonants

	Bilabial	Labio-Dental	Dental	Alveolar	Post-Alveolar	Palatal	Velar	Glottal
Plosive	p,b			t,d			k,g	
Affricate				tʃ, dʒ				h
Fricative		f,v	θ, ð	s,z	ʃ, ʒ			
Nasal	m			n			ŋ	
Approx.				ɹ		j	w	
Lateral				l				

Using this template of the RP accent, I shall next examine the actual differences that are to be found in SSE.

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2.8. Phonological Distinctions between RP and SSE

Given then that we are dealing with the differences between the RP accent of English and the SSE accent of English, we can look predominantly examine their distinctive phonological features. Trubetzkoy (1931) established the now accepted wisdom of subdividing these differences into three groups. He labeled these groupings

"phonological," "phonetic" and "etymological." Carr and Brulard redefined them as "systemic," "realisational" (sic) and "lexical-distributional." Systemic differences entail those "where the set of phonemic contrasts varies between two accents." Realizational differences entail those "where a given phoneme, said to be shared by two or more accents, is realized differently in two or more accents." Finally, the lexical-distributional grouping comprises phoneme distinctions that apply only to certain individual words (the example frequently given is *class* and *bath* which have the long (back) vowel phoneme in RP, but the short one in northern English accents). I shall list below the eleven systemic and realizational differences between RP and SSE, as established by Carr and Brulard.

Systemic

- No short front /æ/ [pat] vs long back /ɑ:/ [part/path]
- No short /ɒ/ [lot] versus long /ɔ/ [thought/north/force]
- No /ʊ/ [put] versus /u:/ [proof] contrast
- No /ɜ:/ [purse] phoneme
- No centering diphthong phonemes
- /w/ [witch] versus /ʍ/ [which] contrast
- /x/ [loch] versus /k/ [lock] contrast

Realizational

- Rhoticity
- /r/ realized as tap /ɾ/ or approximant /ɹ/
- Scottish Vowel Length Rule (a.k.a. Aitken's Rule) for /i/, /u/, and /ʌ/, before voiced fricatives, /ɹ/ and #
- /o/ in /ɔʊ/ [poach] words
- /e/ in /eɪ/ [pace] words
- Realization of "dark l" in onsets and rhymes, rather than solely rhymes
- /au/ becomes /ʌʉ/
- Suffix ending /i/ [happy] becomes /e/
- Schwa suffix /ə/ [comma] becomes /ʌ/

As I explained in the history of Scots and SSE (2.3.), as well as the two Accent sections (2.4., 2.5.), there are minimal syntactic or morphological differences between SSE and RP. However, SSE does have a limited number of lexical differences with RP. For the most part, these are limited to words in three fields: the law, religion, and education. Some terms that could be classified as part of the core vocabulary are also distinct. For example, in the category of body parts, we find [oxter] for "armpit;" of food stuffs, [skink] is a type of fish soup; of household terms, [press] for "cupboard" and [ashet] for "serving plate;" of topological terms, [burn] for "stream" and [glen] for "valley." Of these the majority is borrowed from Scots – only the last is derived from Gaelic. However, the small number of instances of borrowing show the very close relationship between RP and SSE, versus the somewhat weaker bond linking Scots and SSE.

2.9. Biography of the Subject

Gordon Brown was born in the outskirts of Glasgow, was raised near Fife, and enrolled at Edinburgh University aged 16 in 1968. He graduated in 1972, but remained at the university studying for a PhD, which he received in 1982. He was named Rector of the university between 1972 and 1975 and then worked as a lecturer at Glasgow College of Technology. Having run unsuccessfully for Parliament in 1979, he then worked for Scottish Television until his election as Member for Dunfermline East in 1983. At this point, he began to spend more time in London, and therefore receive increased exposure to RP. In 1985 he rose to the position of opposition spokesman for Trade and industry, and then progressed through promotions in both Trade and Industry and the Treasury. By

1992 he was Shadow Chancellor, and he became Chancellor proper on Labour's success in the 1997 elections, a position he held for ten years and two months, making himt he longest serving Chancellor in modern history. Finally, in June of 2007 Gordon Brown succeeded Tony Blair as Prime Minister of the United Kingdom. Despite its seeming inevitability there remained some controversy surrounding the appointment, due to Scotland's devolution, a cause Brown heavily campaigned for during the late 1970s. In this sense, it would actually be in Brown's favor, politically at least, to tone down his "Scottishness" in order to remain a credible leader of a Parliament that only has jurisdiction over *English* affairs.

Brown's family life began relatively late in life. He married his long-term girlfriend, Sarah Macaulay, in August 2000. Their first child, a daughter, was born in December 2001, but she died 11 days later. They have since had two sons together.

3. Methods

Having outlined some of the background behind the accents themselves and the study of accents and accent change I shall now establish the processes I adopted to successfully complete this project. Firstly, I shall look at the factors that led me to choose the topic, then I shall describe the initial research I used to identify how reasonable the project was and finally I shall explain the steps I took to collect and analyze the data in more detail.

3.1 Choice of Topic

During a semester review of linguistic topics (LING490a: Research Methods), I came across Harrington et al.'s 2000 paper in *Nature* entitled "Does the Queen speak the Queen's English?" which analyzed vowel formant frequencies in the Queen's Christmas Day broadcast from 1953-1983. The diachronic acoustic evidence indicated that some of the vowels moved away from their RP locations towards Standard Southern British. This prompted me to think about other figures in the public eye that might display some similar shift between two distinct accents or dialects of English. I soon settled on Gordon Brown, the then newly appointed Prime Minister of the United Kingdom. Not only had he been exposed to forms of British English (and particularly RP due to the nature of his workplace), but also his Scottish background was becoming an issue threatening his credibility in the premiership. As such, I felt that there was the potential for some comparable acoustic analysis. Further research led me a synchronic study of RP influences on the Standard Scottish English in certain parameters. What was particularly

interesting about this study was that the authors (Carr and Brulard) used prominent

Scottish figures in London, including members of the "Westminster village." These last

were Douglas Alexander, Menzies Campbell, Robin Cook, Charles Kennedy, Helena

Kennedy, Malcom Rifkind, Alex Salmond, David Steel, and interestingly enough,

Gordon Brown. This gave me the confidence to pursue further research in to a diachronic

study of only his accent change, however, rather than analyzing the quality of the vowels

produced, I decided to look at phonological features, seeing when they changed

individually during this time period.

3.2. Preliminary Review

Having begun to research papers relating to accent change, and specifically those

involving RP and SSE or both, I proceeded to explore data sources and means of

analysis. For the former, I contacted the BBC Archives Dept and the National Film and

Television Archive, a department of the British Film Institute. Through the BBC, I was

able to obtain a DVD video news footage compilation that had been prepared for regional

news departments on Brown's promotion to Prime Minister. While I was not able to

locate any bespoke audio or video files, the DVD contained news segments from a

variety of points during Gordon Brown's public career. The DVD is approximately 1

hour 40 minutes in length, of which approximately 18 minutes 30 seconds are direct

speech by Gordon Brown. The first news segment is from 1979, and the last is from

2007. At this time, using the Harrington et al. experiment as a model, I played the

footage and recorded the audio streams of 6 speeches, selected to provide a broad

chronological representation of Brown's speech patterns, into a free software program

called Praat. This program, developed by Paul Boersma and David Weenink of the

Institute of Phonetic Sciences at the University of Amsterdam, generates spectrogram

analyses for sound recordings, especially speech signals. For each of these 6 Praat

recordings, I then made a phonetic transcription of the vowels used, marking when the

vowel began and when it finished (see fig. 2).
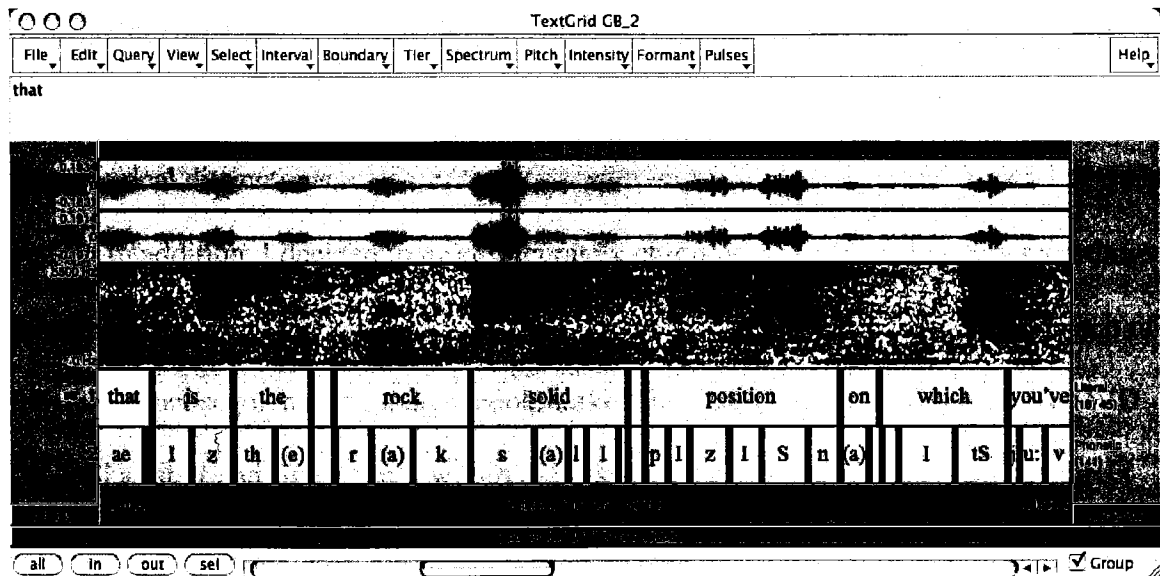
Figure 2: Example Segment of Praat Analysis

Next, I recorded the values for the first and second formant frequencies (F1 and F2) in

hertz, and the length of the vowel in milliseconds on an Excel spreadsheet. By grouping

vowels together in I was able to produce graphs depicting F1 plotted against F2 in which

the area of the data point corresponded with the length of the vowel. Thus I was able to

compare the vowel qualities of each of the different speech recordings, as well as their

lengths. From these I observed that there had in fact been a change both in the quality

and the patterns of length of the vowels between the first and sixth sample. In order to

make the change clearer, I re-plotted the data for speeches 1 and 6 to show the value of

28

F2-F1 plotted against the value of F1, retaining the length data as the variation of the area of the data point. Samples of these graphs are available in Appendix B.

3.3. Full Analysis

For the full analysis, I decided to shift to looking at some of the systemic and realizational differences between RP and SSE as established in Carr and Brulard, 2006. I chose to look at two systemic phonological distinctions, and two realizational phonological distinctions.

In addition, I decided to more accurately chronologically distribute my recordings samples of speech signals taken from the data available to me. Therefore, I listed each of the 30 distinct segments of footage, bookmarked their start and finish times on the DVD (as well as start and finish times within those samples where there were breaks in direct speech of Gordon Brown). Then I attempted to identify as accurately as possible the date of the recording. Some of the samples, for example those taken during Brown's trip to Africa in January 2005 could be dated almost to the exact time, thanks to media diaries documenting the events of the trip[3]. Though this is an extreme example, happily I was able to narrow the dates for the majority of news segments to within one or two days. For a handful, however, I was able to find only a latest possible date of recording. The spread of dates was distributed such that I decided to analyze speech signals taken from five-year intervals. However, because I had only two footage sequences preceding 1991, I used these in lieu of the appropriate time periods. Thus my analyses derive from recordings of Gordon Brown in 1979, some period between 1985 and 1988, 1992, 1997,

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[3] http://news.bbc.co.uk/1/hi/uk_politics/4177281.stm

4. Data

In this chapter, I will present the results of my analysis of the speech samples. In some instances, I have collated the data together and calculated some extra figures. I shall explain each set of data, before discussing the results in the fifth chapter.

4.1. Rhoticity

Rhoticity entails the presence of an /r/ in non pre-vocalic situations. It is clear marker for distinguishing accents of English beyond RP and SSE. For example, it is present in most parts of the USA, Canada, and Ireland, but much less in Australia and New Zealand. I found 205 possible instances of rhoticity. Initially, I included more, but I removed those where the rhoticism was the result of a vowel in the following lexical item. Of the remainder, I noted y/n as to whether or not rhoticism was present. If it was unclear, I analyzed the Praat formant frequencies to detect patterning which would suggest the presence of /r/.

Below is a table outlining the results. The full records can be found in Appendix 7.5.

Speech	1	2	3	4	10	11	17	28
Rhotic	7	16	3	1	6	17	1	3
Non-Rhotic	8	34	6	4	5	20	15	54
%	47	32	33	25	60	46	6.3	5.2

For many of the non-rhotic counts, the context was a word such as "Chancellor" or "Government," and rhoticism never surfaced primarily because the rate of production of the subject was so great that unstressed syllables surfaced as a schwa or equivalent.

2002 and 2006. The final date was chosen despite the presence of a recording from 2007 because that recording was of too poor quality to be able to study. A list of all the available sequences featuring direct speech by Gordon Brown, with those under scrutiny highlighted in bold, can be found in Appendix C.

Somewhat rashly, I pressed on with analyzing rhoticity, because I knew that it was one of the features concerning which I was most likely to be able to make a correct judgment. At this point, I planned to look at 4 different sets of features – two systemic, and two realizational. However as I went through the recordings, I realized that I would not be able to fully analyze some of those features I had chosen. This was because there was not necessarily an example of every feature in each speech. In fact, some features were not present in sufficient quantity to make an accurate interpretation of the data. Having completed my review with respect to rhoticity, I then listened to each recording in turn, and as a native speaker of RP, made judgments about those aspects of each sample that struck me as being non-RP. I learnt that there were elements that I could easily pick out, such as the "dark l" phenomenon.

From this point, I chose the three remaining core areas I would look at, and kept a record of any other features so that I could discuss them separately, which I included briefly in Section 4.5. I treated each core area separately, analyzing each in turn. Any feature-specific methodology is included in the next chapter.

However, this does not detract from the results. The last speech sample in particular ahs many contexts that were amongst the most likely to preserve surface rhoticism, such as "arctic" and "Blair." Thus the data indicates that since 1997 Gordon Brown only minimally produces rhotics.

4.2. /w/ versus /ʍ/ Contrast

This contrast differentiates between the initial consonant of "witch" and the initial consonant of "which." It is another very recognizable feature in distinguishing SSE. As a systemic feature, it is one of the easiest to replicate as a non-native speaker. The data was particularly clear on Gordon Brown's use of the /ʍ/ allophone. Environments suitable to its surface production arose in speech samples 1,2,4 and 28. However, the allophone had a total of only 17 possible environments as opposed to the 66 surface environments for the other allophone. In fact the /ʍ/ allophone only surfaced twice out of those possible 17 occasions. Both of these instances arose in speech sample 2, and both immediately followed an intake of breath by the speaker.

4.3. /o/ in /ɔʊ/ [poach] words

Having had such a strong outcome with one systemic distinguishing feature, I decided to return to the realizational list. The source data provided the feature to analyze for me. While taking notes as I listened to the recordings, one of the most identifiable differences was Gordon Brown's pronunciation of the RP /ɔʊ/. The nature of the speeches

(predominantly concerning economics) resulted in a high number of context environments throughout the samples (for example the word "low" is used frequently). Initially I made a record of the formant frequencies, but these remained essentially static as I progressed. In a complete reversal of my expectations, the /o/ of SSE was retained throughout the 30 year time period as a replacement phoneme for /ɔʊ/. There were only two instances where the diphthong surfaced. In both cases, the vowel was followed by the glide /w/ ("**No i**nflationary..." and "**borrowing**"). In addition, they both occurred within the same speech sample, number 17. The formant frequencies were within a reasonable range from the first to the last speech (F1=400, F2=1000). There were two predicted environments in which neither allophone surface. For "advocating" in speech sample 2 and "allocating" in speech sample 11, /ɪ/ surfaced in their place. I assume this is due to rapid production style of the subject. The full data set can be found in Appendix 7.7.

4.4. Short /ɒ/ [lot] versus Long /ɔ/ [thought/north/force] Contrast

For the final core topic that I chose to examine, I returned to systemic differential features in order to evenly balance the analysis. This particular distinction between the accents provided me with just sufficient material to formulate an accurate idea of any changes in Gordon Brown's vowel quality. There were a plethora of environments that would prompt the RP surface form /ɒ/, and then a decent distribution through the speech samples of environments that would produce an unadulterated (i.e. non-rhotic) /ɔː/. The SSE phoneme that replaces these RP allophones is /ɔ/ (un-lengthened), so the distinction

itself is extremely narrow. However, in this case, I decided it would simpler and clearer

to establish an eventual allophonic contrast in SSE.

My major concern was to avoid misinterpreting any rhoticity context influence on

the surface form of an RP /ɔ:/ environment. Speech samples 2, 4 and 28 contained

contexts that did not risk this contamination. I then chose words that I had established

were non-rhotic from the first analysis I completed in the first section of this chapter.

Thus I had examples from samples, 2, 4, 11, 17 and 28. Next, I chose an environment

that would produce RP /ɒ/ from the same set of speech samples. I took the format

frequency and vowel length data. From it, I was able to produce the following graph that

demonstrates the increasingly allophonic features used by Gordon Brown. Once again,

the full data series can be found in Appendix 7.8.
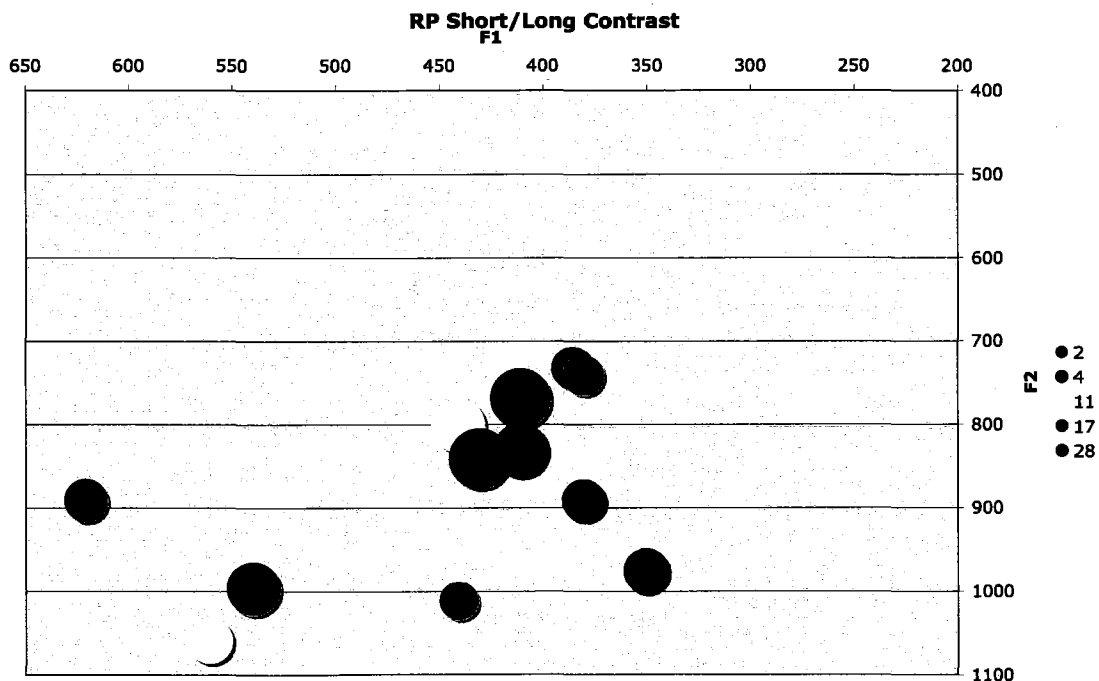
Figure 3: Graph to indicate Gordon Brown's increased distinction between Short /ɒ/
[lot] versus Long /ɔ:/

4.5. Other Aspects

While I focused predominantly on these four traits due to the restrictions of the source data, there are also sign of other aspects of the RP/SSE divide. These a merely observations, and would require further analysis to confirm. Firstly, Gordon Brown has a very "dark l" throughout his career. It is especially apparent in word such as "billion" and "value." In addition, though the evidence is not overwhelming, there is a definite /æ/ versus /ɑ/ contrast. The best exemplars are the word "Chancellor," and "last." The data also shows the presence of the foot/goose divide, in his first budget speech (11), when he lists "food" and "books" in close proximity.

5. Discussion

Each separate topic presented its own unique perspective on the changes in accent undergone by Gordon Brown and the general relationship between SSE and RP. Primarily, neither the realizational nor the systemic areas of phonology are more robust than one another. For the systemic changes, we saw a complete shift to the RP /w/ phoneme, and then the gradual emergence of an allophonic contrast. In the realizational features, rhoticity diminished over time, while /o/ was only minimally impact by continued exposure to RP. Given these outcomes, I do not think that either systemic or realizational is significantly more resistant to change. It is interesting to note that the feature changes that did occur were all echoes of the historical phonological changes that have shaped RP's development from Middle English. The three core differences that made the shift were all major phonological events for RP. The one area that saw no change was a secondary shift that followed on from the long mid vowel merger. In addition, it is far less distinctive and therefore noticeable. Possibly this led to a greater retention of the access potentiality proposed by Macaulay, either consciously or subconsciously. But Sankoff was correct in her assessment that total accent attrition or adoption is unlikely.

The results can also contribute to the great dialect versus accent debate. SSE came away rather mauled by prolonged exposure to RP. Taking the fact that the one feature to have survived was perhaps the least distinctive, this outcome suggests that SSE lies closer to the accent end of the continuum than some (MacArthur) would like. Had there been a distinctive syntax, or morphology or lexicon, these changes may not have

been able to occur. At certain point the phonology-morphology interface must demand

the retention of certain phonetic principles to ensure the language's functionality.

To summarize, then, the project found that three of the four targeted features had

altered during Gordon Brown's tenure as a politician. The difference between the three

that did change and the one that didn't may relate to the phonological development of RP.

The apparent ease of the attrition of such core features would support the hypothesis that

SSE is an accent, not a dialect.

5.1. Improvements

Before I conclude, I wanted briefly to address some improvements that with the time

resources or willpower I would like to have made during this process. Primarily,

phonetic transcription and Praat analysis are terrifyingly subjective. A second opinion

not only minimizes errors, but also provides a morale booster to know that you're on the

right track. However, the greatest challenge I faced was the restrictive nature of my

source data. I could not tackle certain features because of their partial or total absence

from the speeches. I can now only imagine the comparative blessing of a present and

responsive subject. Perhaps one day I shall be able to sit the Prime Minister down for a

more productive stock interview recording than PMQs.

6. Conclusion

My hope in undertaking this project was partially to increase my awareness my own accent, but also to acknowledge shifts in our environment and how they can impact something as personal as an individual's spoken word. For while Wells, as I quoted above, states that accents are something universal the human race, simultaneously an accent is completely individual. Macaulay and others can argue that there is no such thing as a dialect without a speech community. The same is not true for an accent.

For Gordon Brown, perhaps, the changes are a sad reminder of his current political situation. Just as the traditionally left Labour party has achieved success by adopting centrist policies, and his own political world has career has entered a stage of the middle road that the passionate devolutionist Gordon of 1979 may not have envisaged, so too has he had to sacrifice this part of his identity, his accent, to retain his position. It appears that he never stood a chance. If my conclusion is correct, the weight of 500 years worth of phonological change was bearing down on him.

RP's career too has somewhat stalled. It is no longer the centre of attention, and rapidly becoming outdated and outmaneuvered by the young upstarts, Southern Standard British and Estuary English. It may well be the case that the changes occurring in those nascent dialects will one day.

By combining, the historical, sociolinguistic and acoustic approaches, I aimed to provide a wide-lens element to an otherwise very local set of events. Thankfully for my thesis and my sanity, it proved to be a success.

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8. Appendices

8.1. Appendix A: Preliminary Comparison Data Sets

Speech 1 Vowel	F1	F2	F2-F1	Duration	Speech 2 Vowel	F1	F2	F2-F1
ɚ			0		(a)	333	1465	1132
ɚ			0		(a)	584	1380	796
ɚ			0		(a)	641	869	228
ɚ			0		(a)	670	1579	909
ɪ	387	1624	1237	60	(a)	1744	3520	1776
ɪ	322	1818	1496	84	(c)	415	1636	1221
ɪ	373	1753	1380	36	(c)	557	1579	1022
ɪ	400	1753	1353	23	(e)	357	1490	1133
ɪ	322	1598	1276	82	(e)	410	1560	1150
ɪ	425	1599	1174	52	(e)	412	1522	1110
ɪ	361	1457	1096	60	(e)	413	1560	1147
ɪ	438	1560	1122	54	(e)	443	1295	852
ɑ:	750	812	62	42	ae	613	1494	881
ɑ	735	1289	554	65	ae	670	1473	803
ɛ	451	1495	1044	99	ae	812	1522	710
ɛ	657	1444	787	96	E	329	1380	1051
ɛ			0		I	329	1551	1222
ʌ	735	1057	322	41	i	329	1949	1620
ʌ	613	1122	509	58	I	329	1636	1307
ʌ	774	1390	616	84	I	386	1494	1108
ʌ	790	1302	512	56	I	386	1465	1079
i	451	1869	1418	61	I	386	1494	1108
i	271	2024	1753	96	I	413	1485	1072
i	245	1882	1637	87	I	414	1323	909
i	451	1830	1379	107	i	414	1863	1449
æ	709	1547	838	87	I	442	1375	933
æ	748	1454	706	126	U:	358	1550	1192
æ	683	1276	593	60	u:	870	1721	851
æ	750	1500	750	76				
æ	722	1418	696	128				
æ	739	1534	795	111				
o	451	928	477	111				
o	696	1122	426	47				
o			0					
ə	460	1560	1100	46				
ə	761	1457	696	53				
ə	541	1495	954	67				
ə	490	1100	610	63				
ɔ	374	800	426	162				
ɔ	400	846	446	161				
u	336	1481	1145	185				
U	374	1328	954	55				
U	400	1624	1224	110				
e	438	1882	1444	120				
e	438	1934	1496	135				

Speech 3					Speech 4				
Vowel	F1	F2	F2-F1	Dur	Vowel	F1	F2	F2-F1	Dur
ae	670	1295	625	52	(c)	378	789	411	193
ae	676	1428	752	59	(c)	562	775	213	220
ae	704	1457	753	54				0	
ae	718	1499	781	55	a	675	1100	425	87
E	306	1286	980	39	ae	704	1429	725	65
E	308	1485	1177	76	ae	747	1386	639	95
ə	306	761	455	80	e	462	1810	1348	72
ə	335	874	539	71	e	477	1499	1022	81
ə	349	945	596	52	e	633	1415	782	77
ə	604	1429	825	70	e	691	1571	880	71
er	358	1067	709	84	e	704	1600	896	60
er	534	1315	781	108	ə	761	1485	724	62
I	292	1542	1250	82	ə	456	1462	1006	34
I	320	1826	1506	48	ə	456	1311	855	76
I	335	1840	1505	48	er	434	1420	986	77
I	335	1457	1122	86	er	505	1059	554	56
I	363	1514	1151	64	ər	391	1471	1080	45
i	349	1969	1620	54	ər	434	1002	568	71
i	363	1798	1435	79	ər	448	1329	881	50
o	320	775	455	62	i	322	1914	1592	100
o	350	747	397	96	i	349	1982	1633	109
u	278	690	412	70	i	377	1812	1435	112
u	406	818	412	47	i	391	1485	1094	68
					i	406	1926	1520	125
					i	420	1541	1121	48
					I	363	1469	1106	56
					I	389	1520	1131	60
					I	406	1528	1122	76
					I	422	1529	1107	61
					I	462	1417	955	42
					I	462	1500	1038	75
					I	477	1485	1008	45
					o	377	747	370	49
					o	604	974	370	97
					u	363	676	313	61
					U	389	1443	1054	53
					u (dz)	377	1613	1236	64
					v	665	1504	839	97
					(v) will	448	846	398	81

Speech 5 Vowels	F1	F2	Dur
(c)	434	769	224
(c)	434	719	216
(c)	484	843	165
(oa)	348	819	90
(v)	409	1463	
(v)	781	1079	95
a	670	1067	
a	719	1060	124
a	756	1301	113
ae	472	1265	45
ae	645	1513	93
ae	695	1339	63
e	521	1301	92
E	533	1389	43
e	596	1414	85
e	620	1538	111
ə	298	1116	78
ə	372	1227	51
ə	397	1475	40
ə	534	1066	68
ə	830	1388	47
(e)	372	1252	
(e)	446	1104	68
i	323	1909	104
i	459	1872	45
i	384	1921	49
i	466	1909	46
I	360	1772	77
I	459	1800	77
I	421	1463	35
I	533	1512	
I	409	1884	30
o	421	917	126
o	620	1017	114
o	719	1116	95
o	719	1463	122
o	768	1117	
o	1067	1191	72
u	434	1562	123
u	508	1190	77
u:	335	1548	187
u:	398	1438	64

Speech 6 Vowel	F1	F2	F2-F1	Dur
ɚ	695	1463	768	198
ɚ	546	1513	967	123
ɚ	620	1364	744	78
ɚ	447	1389	942	78
ɪ	397	1513	1116	74
ɪ	422	1934	1512	44
ɪ	397	1612	1215	42
ɪ	323	1885	1562	72
ɪ	348	1488	1140	45
ɪ	447	1661	1214	40
ɪ	323	1835	1512	47
ɑ:	670	992	322	258
ɑ:	769	1042	273	121
ɛ	447	1463	1016	72
ɛ	621	1513	892	63
ɛ	645	1488	843	125
ʌ	794	992	198	61
ʌ	596	1067	471	133
i	389	2257	1868	70
i	373	2096	1723	98
i	273	1934	1661	81
i	373	1885	1512	96
æ	695	1042	347	131
æ	670	1339	669	45
æ	769	1389	620	69
o	556	893	337	
o	348	794	446	57
o	323	670	347	78
ə	348	1290	942	65
ə	422	1364	942	61
ə	348	1289	941	62
ə	379	1314	935	29
ɔ	422	695	273	163
ɔ	422	679	257	145
u	298	1587	1289	78
u	323	1562	1239	72

8.2. Appendix B: Preliminary Comparison Chart Series

Speech 1
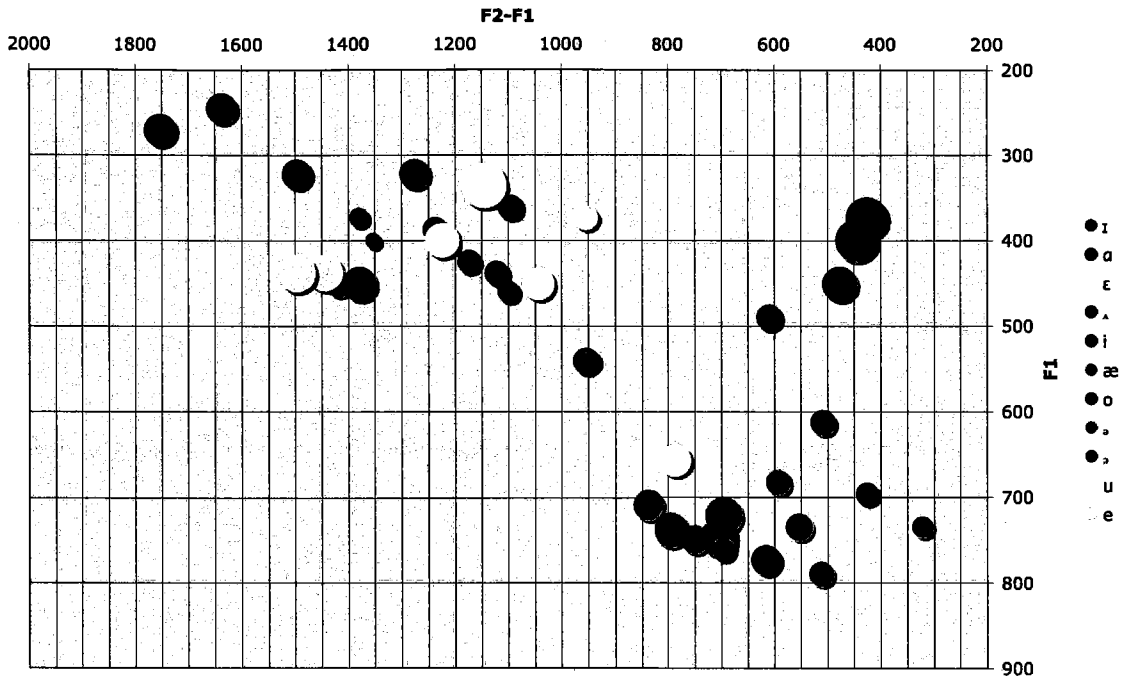
Speech 3
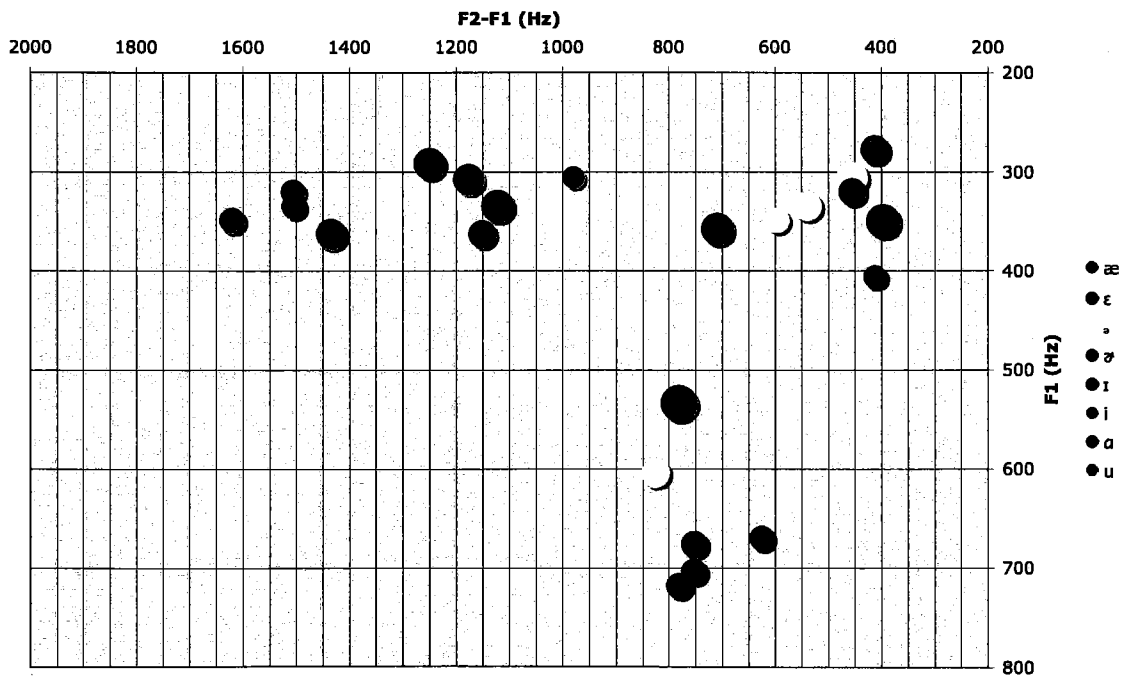
Speech 4
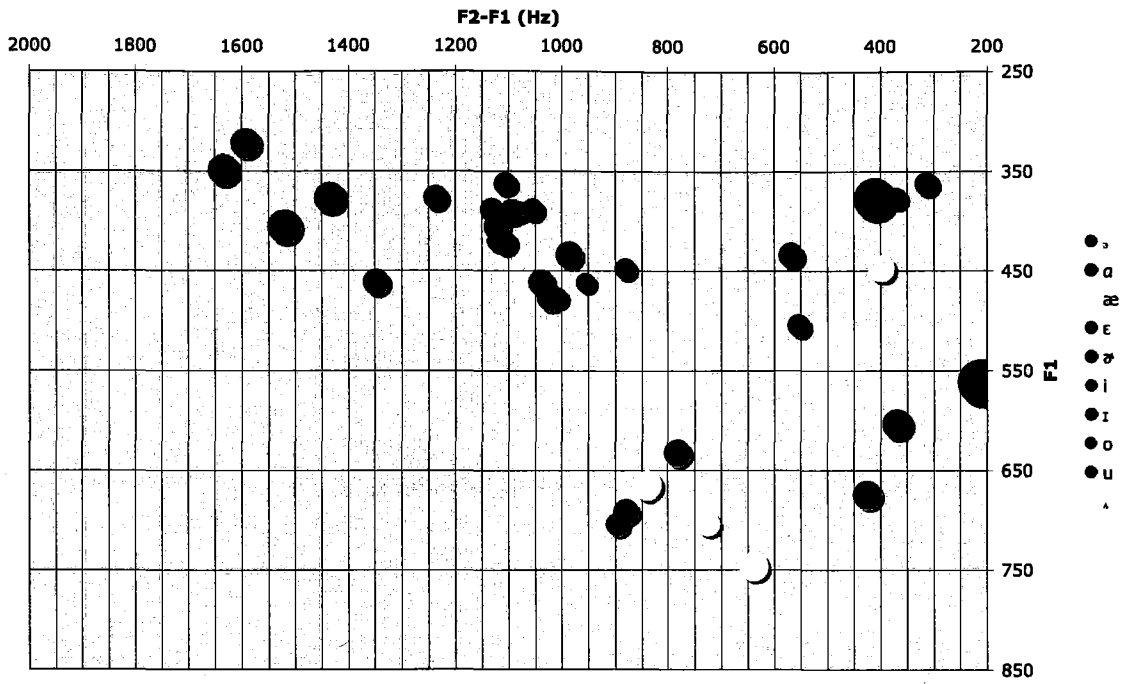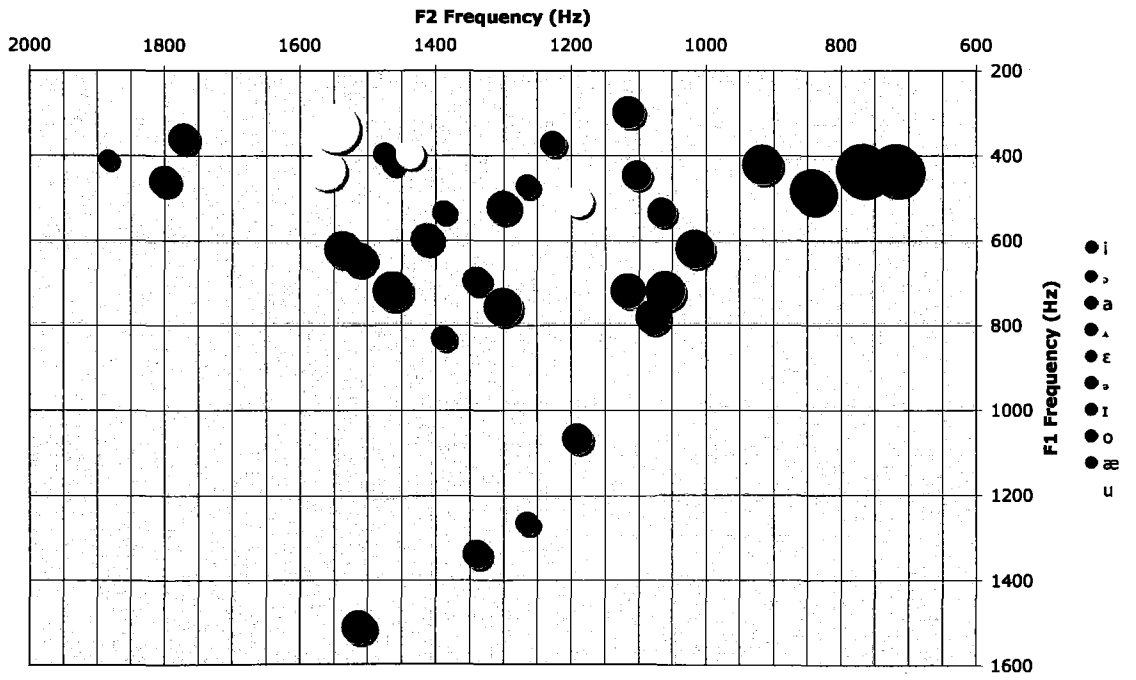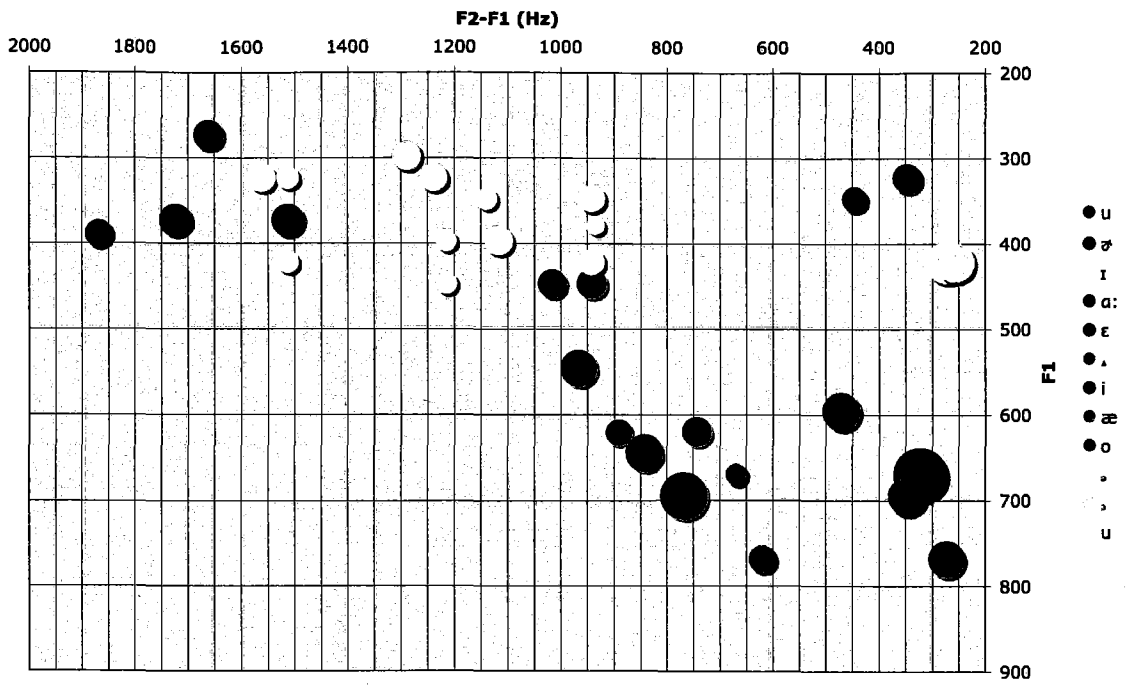
Speech 5

Speech 6

8.3. Appendix C: Audio File Summary Report

Sample	Start	Finish	Length	Approx. Date	Clue
1	**0:00:53**	**0:01:35**	**0:00:42**	**1979**	**Fixed Date of Speech**
2a	**0:03:01**	**0:03:49**	**0:00:48**	**Latest: 1988**	**While Lawson is Chancellor**
2b	**0:03:53**	**0:04:33**	**0:00:40**		
2c	**0:04:38**	**0:05:03**	**0:00:25**		
3	**0:05:25**	**0:05:46**	**0:00:21**	**1992**	**Appointment as Shadow Chancellor**
4	**0:09:50**	**0:10:02**	**0:00:12**	**17th Sept 1992**	**Day after Black Wednesday**
5a	0:11:01	0:11:40	0:00:39	13th May 1994	Death of John Smith
5b	0:11:49	0:12:17	0:00:28		
5c	0:12:27	0:12:50	0:00:23		
6	0:14:11	0:14:21	0:00:10	Post-May 1994	
7	0:17:25	0:17:41	0:00:16	Post-May 1994	Euro Election Campaign
8	0:22:26	0:22:41	0:00:15	Late 1994	Margaret Beckett Support
9	0:28:43	0:29:01	0:00:18	1995	Economic Policy Established
10a	**0:34:33**	**0:34:38**	**0:00:05**	**2nd May 1997**	**General Election**
10b	**0:34:45**	**0:35:08**	**0:00:23**		
11a	**0:38:18**	**0:38:34**	**0:00:16**	**2nd July 1997**	**First Budget**
11b	**0:38:48**	**0:39:14**	**0:00:26**		
11c	**0:39:28**	**0:39:38**	**0:00:10**		
11d	**0:39:44**	**0:39:54**	**0:00:10**		
11e	**0:39:58**	**0:40:09**	**0:00:11**		
11f	**0:40:15**	**0:40:51**	**0:00:36**		
12	0:43:11	0:43:32	0:00:21	1998	Euro Decision
13	0:45:35	0:45:50	0:00:15	Jan-98	New Deal initiative
14	0:46:48	0:47:06	0:00:18	23rd May 2000	Laura Spence Affair
15	0:52:08	0:52:24	0:00:16	Jun-00	Jubilee 2000
16	0:53:02	0:54:13	0:01:11	28th Dec 2001	Birth of Daughter
17	**0:55:36**	**0:56:17**	**0:00:41**	**Late Sept 2002**	**Labour Party Conference**
18	0:57:26	0:57:37	0:00:11	2003	Euro referendum discussion, "pact" discussion
19a	0:59:22	1:00:06	0:00:44	2003	Labour Party Conference
19b	1:00:15	1:00:59	0:00:44		

Sample	Start	Finish	Length	Approx. Date	Clue
20	1:11:10	1:11:23	0:00:13	12th Jan 2005	Trip to Africa, interview in shanty town
21	1:12:06	1:12:19	0:00:13	13/14th Jan 2005	Trip to Africa, in Dar Es Salaam.
22a	1:14:07	1:14:16	0:00:09	5th Feb 2005	G7 Finance Meeting, London
22b	1:14:27	1:14:41	0:00:14		
23	1:16:19	1:16:38	0:00:19	11th June 2005	G8 Finance Meeting, Gleneagles
24	1:19:09	1:19:23	0:00:14	Mid July 2005	G8 Conference, Gleneagles
25	1:21:12	1:21:30	0:00:18	12th Feb 2006	Pre-Labour Party Conference
26	1:22:53	1:23:30	0:00:37	7th May 2006	News report discussing when Blair should step down Post Dunfermline byelection
27a	1:25:26	1:25:41	0:00:15	Mid Sept 2006	Newspaper still from interview
27b	1:26:02	1:26:14	0:00:12		
28a	**1:27:23**	**1:27:43**	**0:00:20**	**Late Sept 2006**	**Praise for Prime Minister**
28b	**1:27:49**	**1:28:04**	**0:00:15**		**Labour Party Conference**
28c	**1:28:53**	**1:29:16**	**0:00:23**		
28d	**1:29:36**	**1:29:56**	**0:00:20**		
28e	**1:30:02**	**1:30:19**	**0:00:17**		
28f	**1:30:29**	**1:30:36**	**0:00:07**		
28g	**1:30:47**	**1:31:20**	**0:00:33**		
29	1:32:34	1:32:39	0:00:05	29th Nov 2006	Announcement of son's cystic fibrosis, newspaper still
30	1:38:29	1:38:44	0:00:15	21st Mar 2007	Budget Announcement

1 The last thing we can **do** is throw up our hands and run away. It would be like the Salvation Army taking **to** its heels on the Day of Judgment, and that is why we say, unequivocally, that support for the Scottish Assembly will remain at the forefront of our program until it is successfully achieved and secondly and finally, we stand by the Scotland act, we urge the government to do all at its power to implement it, we appreciate the difference, we know the government is trying to overcome them, we know the government hasn't forgotten the majority vote cast in favour of the act and we believe the government sincerity on this issue has been demonstrated time and time again.

2a We we have got the worst inflation in Europe and we have got amongst the highest real interest rates, and of course that's coupled with the highest er trade deficit in our history er what we would be doing is having targeted increases in public investment er to correct
some of the inefficiencies in the economy and of course making do some of the inadequacies in the Chancellor's commitment to the National Health Service. The Chancellor's basically got his **whole** strategy wrong. He's concentrated on top rate tax cuts which have led to more imports which have caused pressure on inflation which have caused also pressure on interest rates. If we had had a strategy for investment in the budget, which we proposed at the time, then there would not have been the same pressures and the Chancellor would not have had to come to the house today as he will and admit that all his forecasts were wrong and admit also that mortgage holders and industry and low income families are going to suffer very heavily for his mistakes.

2b Not at all, because what we are talking about is the balance in the economy. We're not advocating an increase in the general growth rate of the economy at this stage what we are saying is that the money ought to be better directed. If the Chancellor were to switch resources particularly from top rate tax cuts which have led to the flood of imports and use the money instead for investment particularly in our regions then he would not have the same inflational pressures and there would not be the the same pressure on interest rates. It's the balance in the economy that the Chancellor's got wrong, it's the balance between the southeast and the regions, it's the balance between investment and consumption and of course as we see with these massive trade figures it the balance between imports and exports as well.

2c We've had oil in the last nine years and the growth rate under this government has actually been less than the growth rates on average under the Labour government. The question really is whether growth is sustainable and the problem is that there's millions of families up and down the country who now face falling living standards as a result of the Chancellor's mistakes. He's making them worse off by the rises in prices and mortgages and I fear that today he'll make them worse off by deteriorating public services.

3 From day one of being shadow Chancellor my first duty is to speak up for the whole country to demand a change of economic policy. Now that requires three things: action to remove the fear of unemployment; action to stimulate investment in industry; and a coordinated European approach er to expanding the economies and reducing interest rates, and of course in these discussions er everything's gotta be considered, but there is no policy for devaluation in the Labour party.

4 When you devalue, and you've made a commitment that you don't, then that is the rock solid position on which you've built your anti-inflation policy and it's fallen apart, er, then the Government can no longer command the confidence of people.

10a I've decided to raise interest rates by a quarter of a percent with immediate effect

10 b I will not shrink from the tough decisions needed to deliver stability and long term growth. I have therefore decided to give the Bank of England operational responsibility for setting interest rates, with immediate effect. The government will continue to set the inflation target and the bank will have responsibility for setting interest rates to meet the target.

11a In place of welfare, there should be work. So today this budget is taking the first steps to create the new welfare state for the twenty first century.

11b In this budget, I have no changes to make to income tax either at the basic or the top rate. I will not extend VAT to children's clothes, food, books, newspapers or public transport f.... nor will I during this parliament. This is a government that keeps its promises on ...

11c ... So I've decided to allocated from the reserve, to the National Health Service for nineteen ninety eight nineteen ninety nine a sum of one point two billion pounds.

11d I propose to allocate from the reserve for next year and specifically for use in schools an additional one billion pounds to education...

11e I therefore propose to make available one point three billion pounds ... over the course of the parliament...

11f Mister Deputy Speaker. The measures I've announced today for stability, for investment, for employment opportunity for all and for education will make Britain better equipped and more ready to face the future with confidence. Previous budgets pursued the short-term interest of the few. This budget advances the long-term interests of the many. This is a budget equipping Britain for the future, meeting the people's priorities, a people's budget for Britain's future, and I commend it to the house and to the country.

17a I can rep███ to this conference that today Britain has the lowest inflation in Europe, the lowest in our country ██ ██ty y██s, and █e now have the lowest long-███ interest rates and the lowest ███tgage rates for home own██ ██ ██ty y██s in ███ country…

17b Th██ should be no inflationary pay a██ds, th██ can be no breach of our fiscal discipline, no playing politics to bypass our fiscal rules, and t██ can be no return to the old days of reckless borrowing unsup███ed by fiscal prudence…

28a I've ██ked with Tony B██ ██ almost ten y██s as Chancell██. It's the longest relationship of any Prime Minist██ and Chancell██ in Mod██ British history and it has been a privilege ██ me to ██k with and ██ the most successful La██ Prime Minis██.

28b But it's h██dly ██prising that, as in any relationship, th██e have been times ██en we've dif██ed. And ███ o██ these y██s differences have distracted from ██at matt██s, I regret that. And I know Tony does too.

28c My parents ███ m██ than an influence. They ███ and still ██ my inspiration - t█████ the reason I'm in politics and all I believe and all I try to do come from the values I ██ned from them. They believed in duty responsibility and respect ██ oth██s they believed in honesty and h██d ███ and that the things that mat██ had to be ██ked f██.

28d As a quite private ███son ██at drew me into public life, was not a ██ch f██ fame █ headlines, but a det██ination to make a difference. If I thought the fu██ of politics █as just about celebrity, and not about something more substantial, I ██ouldn't be in politics.

28e It ██ill not be a s██rise to you to ████ I'm more interested in the fut██ of the ██ic ██le than the fut██ of the ██tic Monkey's. Some people see politics as spectacle. I see politics as ██vice, because it's through ██ice that you can make a difference and you can help people change t██r lives.

28f I ██ould relish the op██tunity to take on David Cameron and the Con██vative Party.

28g This is the Britain I believe in. It's a Britain ████ by the strong helping the ██eak, ██ ██ole society becomes strong██, ████ by all contributing, each and every ██e of us is enriched, let the message go out from ██ ██ty to the ██ole of the people of Britain, ███ values are ██ values, and ██king toget██, ██e can, ██e must, ██e will build the good society and in ██ time. Thank you.

8.5. Appendix E: Rhoticity Data Set

Speech	Word	Rhotic
1	our	y
1	support	y
1	forefront	y
1	our	y
1	power	y
1	over	y
1	favor	y
2a	course	y
2a	our	y
2a	service	y
2a	more	y
2b	we're	y
2b	we're	y
2b	icularly	y
2b	imports	y
2b	icularly	y
2b	our	y
2b	pressures	y
2c	years	y
2c	there	y
2c	standards	y
2c	fear	y
2c	worse	y
3	first	y
3	coordinated	y
3	party	y
4	your	y
10a	quarter	y
10b	deliver	y
10b	term	y
10b	there	y
10b	target	y
10b	target	y
11a	work	y
11a	first	y
11b	or	y
11b	newspaper	y
11b	nor	y
11c	service	y
11d	reserve	y
11d	year	y
11e	fore	y
11f	mister	y
11f	speaker	y
11f	for	y

Speech	Word	Rhotic
11f	for	y
11f	more	y
11f	future	y
11f	pursued	y
11f	term	y
11f	future	y
17a	report	y
28c	were	y
28c	learned	y
28e	service	y
1	army	n
1	for	n
1	urge	n
1	government	n
1	govt	n
1	govt	n
1	forgotten	n
1	govt	n
2a	worst	n
2a	tar	n
2a	course	n
2a	Chancellor	n
2a	Chancellor	n
2a	imports	n
2a	pressure	n
2a	pressure	n
2a	there	n
2a	pressures	n
2a	Chancellor	n
2a	forecasts	n
2a	are	n
2b	we're	n
2b	better	n
2b	Chancellor	n
2b	were	n
2b	resources	n
2b	part	n
2b	part	n
2b	Chancellor	n
2b	figures	n
2b	imports	n
2b	exports	n
2c	under	n
2c	govt	n
2c	under	n
2c	labour	n

Speech	Word	Rhotic
2c	govt	n
2c	whether	n
2c	Chancellor	n
2c	worse	n
2c	mortgage	n
2c	parliament	n
3	Chancellor	n
3	for	n
3	requires	n
3	course	n
3	considered	n
3	labour	n
4	apart	n
4	govt	n
4	longer	n
10a	percent	n
10b	for	n
10b	fore	n
10b	govt	n
11a	welfare	n
11a	there	n
11a	welfare	n
11a	for	n
11a	first	n
11b	transport	n
11b	parliament	n
11b	govt	n
11c	reserve	n
11c	for	n
11d	for	n
11d	for	n
11e	there	n
11e	over	n
11e	course	n
11f	measures	n
11f	opportunity	n
11f	better	n
11f	short	n
11f	term	n
11f	for	n
11f	future	n
17a	for	n
17a	thirty	n
17a	years	n
17a	term	n
17a	mortgage	n

17a	owner	n	28b	there	n	28e	learn	n
17a	for	n	28b	differed	n	28e	future	n
17a	forty	n	28b	where	n	28e	Arctic	n
17a	years	n	28b	over	n	28e	Circle	n
17a	our	n	28b	years	n	28e	Arctic	n
17b	there	n	28b	matters	n	28e	service	n
17b	awards	n	28c	were	n	28e	their	n
17b	there	n	28c	more	n	28f	opportunity	n
17b	there	n	28c	are	n		conservativ	
17b	unsupporte		28c	they're	n	28f	e	n
17b	d	n	28c	others	n	28g	where	n
28a	worked	n	28c	hard	n	28g	our	n
28a	Blair	n	28c	work	n	28g	stronger	n
28a	for	n	28c	matter	n	28g	where	n
28a	years	n	28c	worked	n	28g	our	n
28a	Chancellor	n	28c	for	n	28g	porty	n
28a	Modern	n	28d	person	n	28g	your	n
28a	for	n	28d	search	n	28g	our	n
28a	work	n	28d	for	n	28g	working	n
28a	for	n	28d	or	n	28g	together	n
28a	labour	n		determinati		28g	our	n
28a	minister	n	28d	on	n			
28b	hardly	n	28d	future	n			
28b	surprising	n	28e	surprise	n			

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8.6. Appendix F: /æ/ and /ɑ:/ Contrast

Speech	Context	/ʍ/?
1	why	n
2	what	n
2	which	y, but poor data
2	which	n
2	which	y
2	which	n
2	what	n
2	what	n
2	which	n
2	whether	n
2	who	y
4	when	n
4	when	n
4	which	n
28	what	n
28	where	n
28	where	n

8.7. Appendix G: /o/ in /ɔʊ/ [poach] Words

Speech	Context	/o/?
1	throw	y
1	program	y
1	know	y
1	overcome	y
1	know	y
2	whole	y
2	also	y
2	proposed	y
2	also	y
2	holders	y
2	low	y
2	going	y
2	growth	y
2	growth	y
2	growth	y
2	growth	y
3	aproach	y
3	no	y
4	won't	y
4	no	y
10	growth	y
11	so	y
11	no	y
11	clothes	y
11	propose	y
11	propose	y
11	over	y
17	lowest	y
17	lowest	y
17	lowest	y
17	lowest	y
17	home	y
17	owners	y
17	no	n
17	no	y
17	no	y
17	no	y
17	borrowing	n
28	Tony	y
28	over	y
28	know	y
28	Tony	y
28	go	y
2	advocating	I
11	allocated	I

8.8. Appendix H: Short /ɒ/ [lot] versus Long /ɔ/ Contrast

Speech	Context	Length (ms)	F1	F2
2	**ought**	0.099	351	975
2	**falling**	0.14	411	831
2	got	0.083	386	732
2	concentrated	0.085	381	891
4	**fallen**	0.0741	381	741
4	solid	0.069	441	1011
11d	**course**	0.135	441	801
11	promises	0.0977	561	1059
17	long	0.134	540	996
17a	**forty**	0.17	411	769
28	**thought**	0.171	431	841
28	**opportunity**	0.088	621	891