

A preliminary investigation of the sociophonetics of Nottingham adolescents

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Abstract

This paper presents the results of a study of 12 adolescents from two areas of Nottingham. Three variables are included: MOUTH, *happY* and *lettER*. Results revealed female WC adolescents to be the highest users of a variant of *lettER* lowered and retracted from schwa, a hyper-lax variant of *happY*, and a monophthongal realisation for MOUTH. Female MC adolescents were the highest users of standard-like diphthongal MOUTH and incoming tensed *happY*. Male adolescents' variant usage was more similar across social groups. It is proposed that the greater differences between the female adolescent groups are due to increased negative evaluation of the opposite social class.

1. Introduction

Much recent and ongoing variationist sociolinguistic and sociophonetic research in the UK has focused on identifying and explaining patterns of variation and change (e.g. [1], [2], [3], [4], [5], [6]), with [2], [3] concentrating specifically on adolescents and their role in furthering change or introducing new variants.

It has been noted that the concept of identity plays a major part in variant usage by adolescents, with linguistic behaviour often signifying membership (or lack of membership) of a particular group with distinct values, tastes or beliefs [7], [8].

This paper examines the differing usage of variants of three vocalic variables by adolescent speakers from socio-economically different areas of Nottingham, and suggests some possible explanations for existent variation.

2. Nottingham

Nottingham is a city in the East Midlands of England (see Figure 1). Traditional industries in and around the city have included lace-making and coal mining, and Players' tobacco, Boots' pharmaceuticals and Raleigh bicycle manufacturers all until recently played a major part in employment in the city [9]. In recent years, these blue collar industries have all seen dramatic decline. Employment in the city is now focused on the service sector, with several white collar organisations having opened major sites in the last fifteen years. Alongside this, parts of the city centre have undergone regeneration. The change of the types of jobs on offer in and around the city, improved transportation links to London, Birmingham and other cities, and the recent regeneration have made parts of Nottingham more attractive to young professionals, commuters and young families. As a result, the middle class (MC) suburban areas continue to grow. However, there also remain inner city estates and former mining communities of working class (WC) people, whose families have lived in Nottingham for generations.

Linguistically, Nottingham has been largely ignored by variationists. This is a little surprising, as its location in the centre of the country means its speakers are potentially susceptible to influences from both northern and southern varieties. Moreover, the recent demographic and socio-economic changes have created conditions favourable for linguistic variation and change.

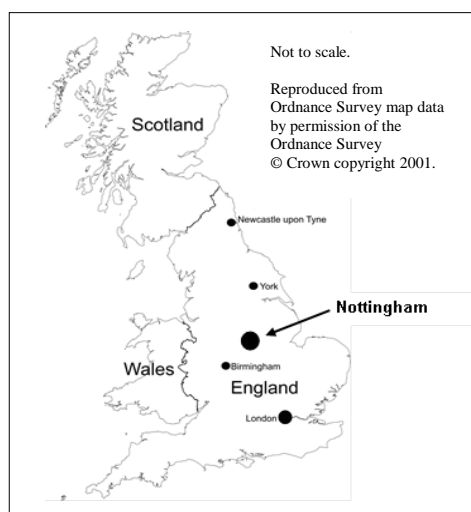


Figure 1: Location of Nottingham.

For this piece of research, two distinct areas of Nottingham were sampled. Firstly, West Bridgford, a MC suburban area lying just outside the city boundary, to the southeast of the city, and secondly, Clifton, a former council estate lying within the city boundary.

West Bridgford is considered a desirable place to live, is the home of the county council headquarters and of the local Member of Parliament, and has a population which is predominantly white and MC. Clifton was built in the 1950s when there was a shortage of council housing in the city. At the present time, some housing has passed into private ownership, and Nottingham Trent University has a campus in the vicinity, but it would not be inaccurate to say that the majority of the non-student population of Clifton could be regarded as WC, certainly of a lower socioeconomic class than those living in West Bridgford.

3. Data and method

The data came from twelve adolescent speakers aged 12-19, stratified for sex and hometown. Six speakers were sampled from each of the localities of Clifton and West Bridgford. One-to-one sociolinguistic interviews lasting between 30 and 50 minutes were recorded, consisting of casual conversation, informal discussion about participants' opinions of local and

supralocal accent features and the people who use them, describing pictures, a reading passage and a word list. Data from the reading tasks were not included in this analysis. Interviews took place in informants' homes, or at a quiet location at a local sports centre. An M-Audio Microtrack 24/96 with the T-shaped stereo electret microphone supplied with this device was used to record the interviews, with recordings sampled at 44,100Hz.

Variants of each linguistic variable under observation were coded following auditory observations. Discrete variant categories were used, as detailed in §§ 4.1, 4.2 and 4.3. Following auditory analysis, measurements of the first two formants of a sample of tokens were taken and plotted on formant charts, to confirm the accuracy of the auditory observations, and to examine the relative placement of speakers' tokens within their respective vowel spaces. Sensimetrics SpeechStation 2 was the software used, with formants measured manually from LPC spectra with bandwidth set to 512.

4. The linguistic variables

4.1. MOUTH

The standard form of the MOUTH variable (the vowel in words such as *now* and *down*) is diphthongal [aʊ] [10]. However, in the midlands and middle north, monophthongal realisations have been noted [10], [11], [12], [13]. In nearby Derby, [a:] was reported as being the main local variant, and the majority realisation for speakers of all speaker groups sampled [11]. It was further noted by [11] that standard [aʊ]-like diphthongs did also occur, and were more common for MC speakers and in formal styles. [12] found that in Sheffield, another city close to Nottingham, while the local variant [a:] was common for all age groups, [aʊ] was growing in popularity. Elsewhere in the UK, it has been revealed that local variants of MOUTH have been losing ground to the standard diphthongal [aʊ] variant [2], [13].

For this study, MOUTH realisations were categorised as either local monophthongal [a:] or standard diphthongal [aʊ].

4.2. lettER

The *lettER* variable is defined by [10] as being the word-final unstressed vowel in words such as *master*, *figure* and *tutor*. *lettER* is typically realised as [ə], however, alternative realisations have been noted as occurring, and these include [ɐ] in Tyneside [13], London [14], and Birmingham [15], and [ɒ] in Manchester and Sheffield [13].

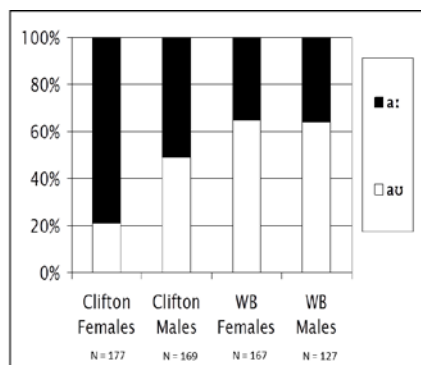


Figure 2: MOUTH variation.

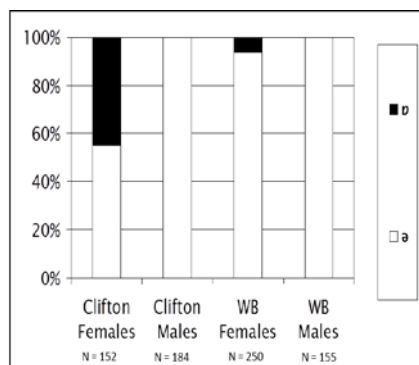


Figure 3: lettER variation.

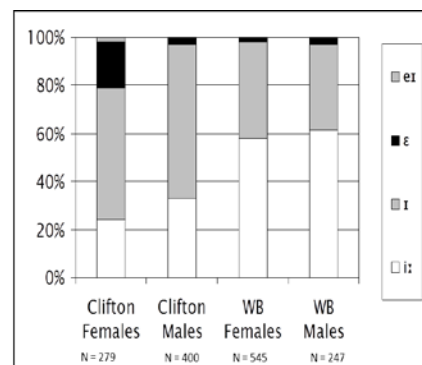


Figure 4: happY variation.

4.3. happY

The definition of *happY* is given as the word-final unstressed vowel of words such as *baby* and *coffee* [10]. Traditionally, this lexical set has been equated with the stressed vowel KIT with realisation [ɪ]. However, there is a growing tendency for speakers to feel intuitively that *happY* 'belongs' with FLEECE rather than KIT, and use a closer [i:] vowel for *happY* [10]. This process has been termed "*happY*-tensing".

The widely-accepted belief is that *happY*-tensing is a recent innovation originating in southeast England and can be considered a feature of southern varieties of English, with most northern varieties (exceptions include the varieties spoken in Tyneside and Liverpool) retaining [ɪ] for *happY* [13] (cf. [16] for arguments against the southernness and recentness of *happY*-tensing). Existing literature appears divided on the status of *happY* around the East Midlands. [17] report [i:] for *happY* in Leicester and [11] found [i:] to be the majority variant in Derby, but in Sheffield, [12] give [ɪ] as the main realisation.

Descriptions in the literature have also included a variant of *happY* reported to be spoken in and around the Nottingham area which is further lowered from [ɪ] approaching the [ɛ] quality of DRESS [10], [18]. This hyper-lax variant has also been observed in Sheffield [12], [13] and Manchester [13], [19] and has been identified as a stigmatised variant in these varieties [13].

For this study, *happY* variants were categorised as tensed southern [i:], northern [ɪ], or local hyper-lax [ɛ]. On commencement of auditory observation, a small number of diphthongal realisations were also noted, and these were grouped separately as [eɪ].

5. Results

5.1. MOUTH

Figure 2 presents the percentage distribution of MOUTH variants for the four speaker groups. As can be clearly seen, MC West Bridgford adolescents of both sexes used the standard diphthongal realisation more often than adolescents from Clifton. A chi-square test found the speaker hometown difference to be statistically significant ($\chi^2=62.52$, $df=1$, $p<0.001$).

Clifton females were the highest users of the local monophthong variant, with usage of [a:] at 79%. Clifton males used [a:] and [aʊ] in almost equal proportions. A chi-square test found the sex difference to be statistically significant for Clifton adolescents ($\chi^2=29.05$, $df=1$, $p<0.001$).

In West Bridgford, variant distribution was found to be extremely similar for both sexes. In fact, there was only a 3% difference between male and female use, with both sexes favouring the standard diphthong variant. The factor of sex was not significant in West Bridgford ($\chi^2=0.19$, $df=1$, $p=0.663$).

5.2. lettER

Figure 3 gives the percentage distribution of *lettER* variants for the four speaker groups. The first major point to make, is that for this sample of speakers, male adolescents used schwa-like realisations categorically. A non-schwa pronunciation was used by female adolescents at a level of 11% overall. Unsurprisingly, given the categorical use of [ə] by males, the factor of sex was statistically significant ($\chi^2=78.82$, $df=1$, $p<0.001$).

[ɒ]-use by female adolescents from Clifton was considerably higher than by their West Bridgford counterparts. Indeed, [ɒ] occurred at a rate of 65% for Clifton females, compared to just 6% for West Bridgford females. This hometown difference in use was found to be statistically significant ($\chi^2=84.23$, $df=1$, $p<0.001$).

For all speakers who used them, non-schwa pronunciations were perceived during auditory analysis as being lower, backer and rounder than schwa, approaching the quality of LOT. Formant measurements of *lettER* tokens confirmed these auditory observations, with tokens perceived as "not-schwa" occurring in the low back portion of individual speakers' respective vowel spaces when plotted on vowel formant charts. Figure 5 presents the formant chart for a typical Clifton female adolescent. The presence of lowered, retracted *lettER* tokens is clearly indicated.

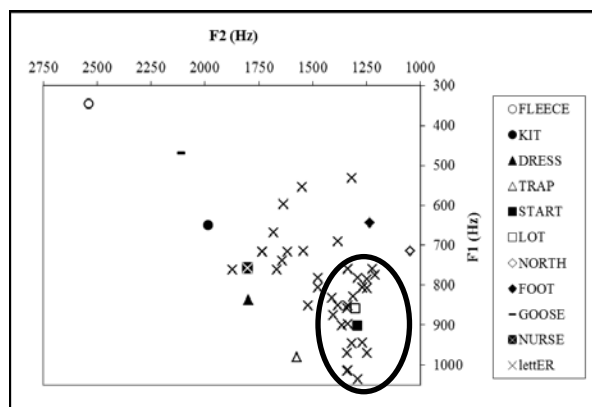


Figure 5: Formant plot showing *lettER* for a Clifton female.

5.3. happY

Figure 4 presents the percentage distribution of *happY* variants for the four speaker groups. West Bridgford adolescents were the highest users of the southern tensed form of *happY* believed to be spreading northwards. Clifton males were the highest users of [i], while Clifton females used a high proportion of [ɪ], and were also the highest users of [ɛ], in fact the only speaker group with [ɛ]-use higher than 3%. A chi-square test found the speaker hometown difference in variant usage to be statistically significant ($\chi^2=145.36$, $df=2$, $p<0.001$). Once again, extremely similar proportions of use for the variants were found for adolescents of both sexes in West Bridgford, and sex proved to be not significant ($\chi^2=2.41$, $df=2$,

$p=0.300$). Not surprisingly, given the considerably higher use of [ɛ] by the females, sex was found to be a statistically significant factor in Clifton ($\chi^2=50.08$, $df=2$, $p<0.001$).

Tokens coded as [ɛ] were perceived as being considerably laxer than KIT. Formant measurements were taken so as to plot individual speakers' tokens to give an indication of how lax their *happY* tokens actually were. A further aim of this procedure was to see whether there was evidence to support comments by [10], [18] that *happY* in Nottingham can be realised with a quality approaching DRESS. All 3 Clifton females had considerable numbers of *happY* tokens measured as being as open as their respective DRESS vowels. Indeed, some tokens for these three speakers were measured as being even laxer than DRESS. These results then, imply agreement with [10], [18]'s claims. Figure 6 gives the formant chart for a typical Clifton female adolescent, with hyper-lax *happY* tokens clearly shown.

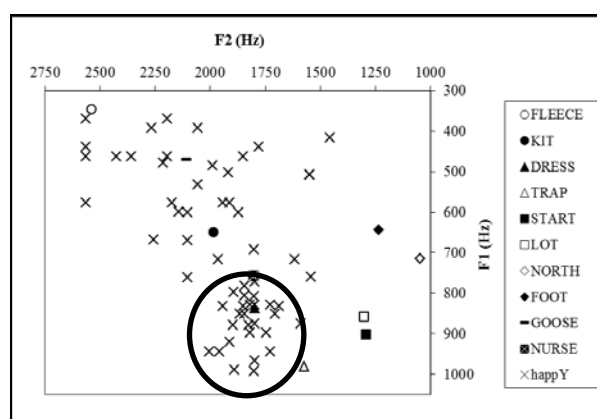


Figure 6: Formant plot showing *happY* for a Clifton female.

5.4. Attitudinal data

As part of the sociolinguistic interviews, participants were questioned informally about their opinions on how people from different areas of Nottingham spoke. All speakers reported a liking for how they spoke themselves. The male participants from both Clifton and West Bridgford were of the opinion that there were not any big differences in accent between speakers from different areas of Nottingham. However, female participants were quite judgemental in their evaluations of speakers with an accent different to their own, and inhabitants of socioeconomically different areas of Nottingham. Specifically, female adolescents from the MC area of West Bridgford said they did not like the way people from inner city areas spoke, because they thought they sounded "common", "uneducated" and "Chavvy", while female adolescents from Clifton said they did not like the way people from MC areas (West Bridgford was given as an example) spoke, because they thought they sounded "false", "too posh" and "like snobs".

6. Discussion

Consideration of the results reported in § 5 brings to light some quite interesting patterns. Firstly, the adolescents from West Bridgford made the greatest use of those variants that could be considered standard, southern, or new to the variety, namely, [aʊ], [ə] and [i:], while adolescents from Clifton used the local and traditional northern variants [a:], [ɪ] and [ɛ] in

higher proportions. This finding matches the widespread-mentioned pattern that that MC speakers use a higher proportion of standard variants, and favour incoming prestige norms, while speakers from a lower socioeconomic group, use a higher proportion of non-standard and local forms (e.g. [20]).

Clifton females were by far the highest users of the hyper-lax variants of the word-final unstressed vowels *happy* and *lettER*. Instrumental measurement confirmed the perceived laxness of these variants. A consequence of the higher use of these variants is that the differences in variant use between the female adolescents from the two areas of Nottingham were greater than those between the male adolescents. Table 1 presents this result more transparently.

Use of incoming/southern/standard variants						
	Females			Males		
	Clifton	WB	Diff	Clifton	WB	Diff
[aʊ]	21	65	44	49	68	19
[ə]	55	94	39	100	100	0
[i:]	24	58	34	33	62	29
Use of local Nottingham variants						
	Females			Males		
	Clifton	WB	Diff	Clifton	WB	Diff
[a:]	79	35	44	51	32	19
[ɒ]	45	6	39	0	0	0
[ɛ]	19	2	17	3	3	0

Table 1: Comparing percentage distribution of variants.

Arguably then, it could be said that the female adolescent groups were distancing themselves further linguistically than the male adolescent groups were. That is, making greater use of the variants on offer to mark themselves as members or non-members of a particular social group. It could be argued that specifically, Clifton females used excessive use of hyper-lax variants of unstressed word-final vowels and monophthongal MOUTH, to avoid being mistakenly considered “posh”, since this personal attribute has negative connotations for them.

7. Conclusion

This investigation into the speech of adolescents in Nottingham has found some considerable sociophonetic variation within and between speakers of different sexes and living in socioeconomically-different areas. Some possible explanations for the existence of this variation have been offered. It remains to be seen whether the patterns of variation hold and the interpretations remain valid with a larger speaker sample. Further research in Nottingham is ongoing, aiming to incorporate additional linguistic variables, both vocalic and consonantal, a greater number of speakers, and the inclusion of adults in the sample, to allow linguistic changes in progress in Nottingham to be observed.

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