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Intonational variation and change in York English

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The variety of English spoken in the city of York, UK, is of sociolinguistic interest due to the ‘recycling’ of traditional dialectal forms such as Definite Article Reduction (*‘to t’pub’*) and Past-Reference ‘come’ (*‘I come home late last night’*) by younger (typically male) speakers. This is despite the fact that – in the same apparent time studies based on the York English Corpus (‘YEC’) – middle-aged speakers (aged 50-70) used these forms less than older speakers (>70), so these patterns had previously appeared to be falling out of use [1, 2]. In this paper we first argue for the existence of a distinctive ‘Yorkshire rise-fall’ nuclear contour, which is sufficiently different in form and distribution from rise-fall contours reported for other varieties of British English that it can be characterised as a traditional (prosodic) feature of Yorkshire dialects. We then explore whether the observed patterns of variation in lexical-grammatical variables are mirrored in variation and change in use of this distinctive Yorkshire rise-fall nuclear contour, in apparent time, via qualitative analysis of a data subset from YEC.

Methods: We analyse two types of data: a) production data collected for the present project, and b) excerpts from the YEC [1]. For our own data collection we used a mix of read and semi-spontaneous speech stimuli, similar to those used in the IViE corpus [3], and adapted from previous work on Middlesbrough English [4]. These include: scripted sentences elicited in a question-and-answer paradigm, Cinderella story read then retold from memory, map task and free conversation. Recordings were made in same-sex friendship pairs or mixed-sex couples, with each speaker recorded to a separate channel, via head-mounted microphones, directly to digital format. We report here results from 10 speakers who were raised and living in York: 4 females aged 18-25, 5 females aged 45-75; 1 male aged 45-75. For the corpus data analysis we selected 20 speakers from the total 92 speakers in the York English Corpus, to achieve a balanced sample by age, gender and social class, but selecting only from speakers where the quality of the sound recordings were suitable for acoustic analysis. The read speech data were manually labelled for word boundaries and Praat scripts used to extract the pitch contour to produce time-normalised visualisations of nuclear contours by sentence type [5], which were further explored using Generalised Additive Models [6]. The quantitative analysis of read speech was corroborated via qualitative analysis of parallel examples identified in (semi-)spontaneous speech from the production data and from the YEC data subset. Finally, we report here a count of the number of observed rise-fall contours in a pilot data subset from nine speakers in the YEC.

Results: Figure 1 shows time-normalised f₀ contours in the last word of read speech sentences of different types: declaratives (dec), wh-questions (whq) and yes/no-questions (ynq), with older speakers’ productions plotted in the upper panel. The one older male speaker in the dataset (aged ≥65 and self-described as ‘working class’) consistently uses a rise-fall contour, across all sentence types. Some of the older female speakers show the same consistent patterns, but others display a simple (downstepped) fall in declaratives and wh-questions, and either a shallow or steep rise in yes/no-questions. Younger speakers display only a few rise-fall tokens, with most tokens showing a fall in dec/whq and a shallow rise in ynq.

A set of GAM models run on the full dataset (Figure 2) confirms this initial observation of age-related variation. Inspection of the shape of the rise-fall used by older speakers in read speech indicates that the start of the rise is aligned stably at the start of the stressed syllable, with the peak at the end of the stressed syllable, suggesting analysis as L+H* L-L%; the contour is also typically realised in a wide pitch span. The form (i.e. alignment/scaling) and distribution (i.e. use across utterances of differing illocutionary force) of the rise-fall contour is paralleled in tokens extracted from (semi-)spontaneous speech in our own data and in the YEC; Figure 3 shows a rise-fall nuclear contour on a wh-question by an older male working class speaker from YEC.

A pilot count of rise-fall contours observed in two minutes of speech from each of a stratified sample of nine speakers from the YEC (Figure 4, based on auditory analysis by the first author) hints at a more complex pattern of variation in apparent time in use of the rise-fall contour, with age and social class as relevant factors for male speakers, as well as decreasing use of the pattern by female speakers across age groups. To confirm these trends, we are now collecting read/spontaneous speech data from younger and older male speakers, and will report the results in the full paper, along with analysis of the form, distribution and number of observed rise-falls in the full York English Corpus sample of 20 speakers.

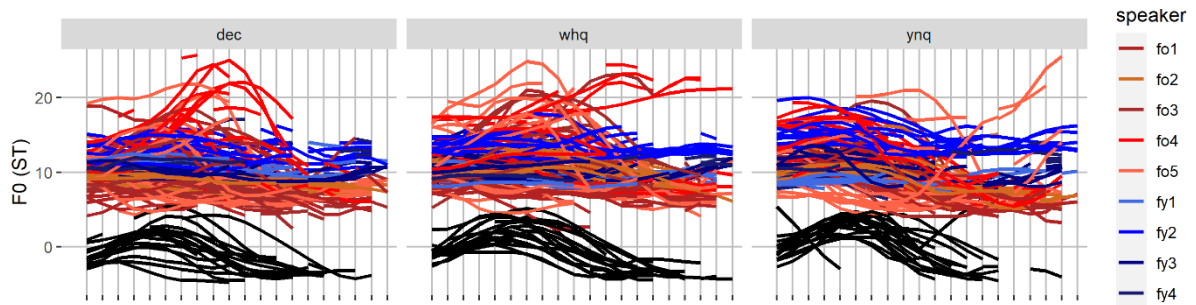


Figure 1. Time-normalised smoothed F0 in last word of all tokens by sentence type (dec/whq/ynq) and by age and gender (reds = older females; blues = younger females; black = older male).

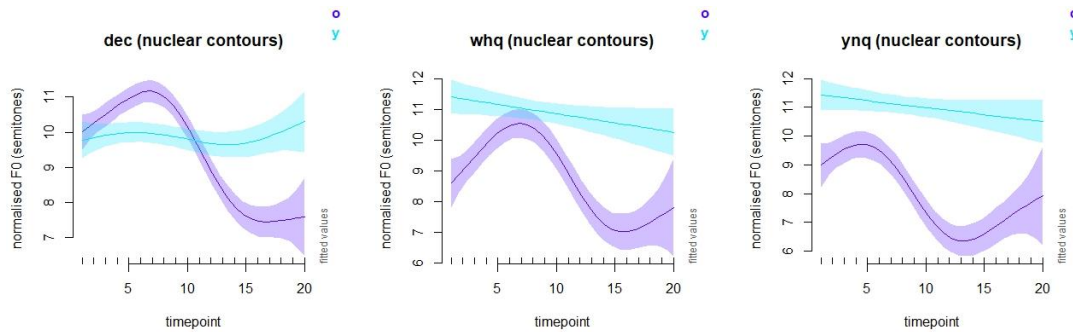


Figure 2. Predictions of GAM models of the nuclear contour, by age (*o* = old, *y* = young), using cubic regression splines (*cr*) fitted using *fREML* estimation for *dec/ynq/whq*.

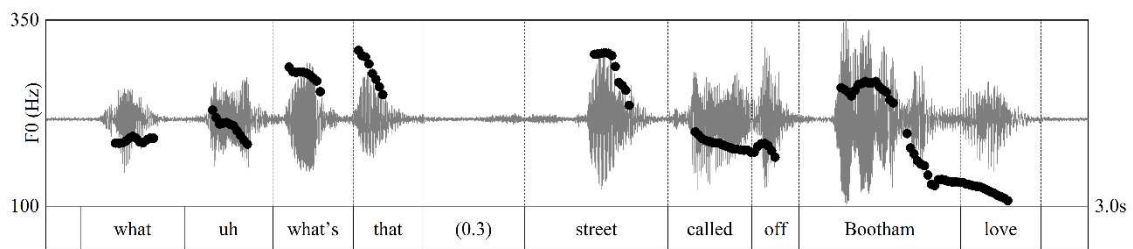


Figure 3. Example of rise-fall nuclear contour on a *wh*-question from YEC (speaker Y005 age 68).

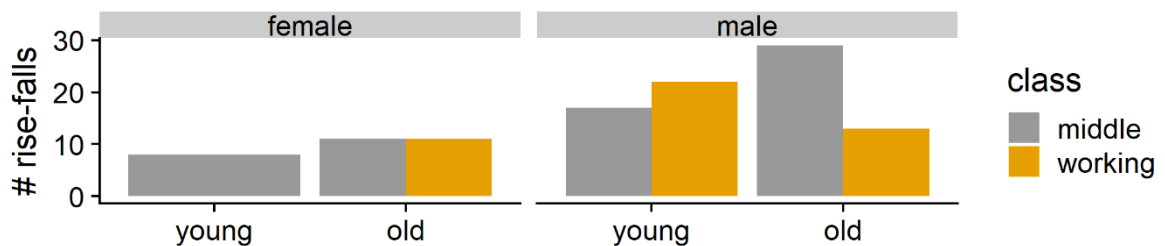


Figure 4: Count of 'rise-fall' contours in a two-minute sample from each of 9 speakers from YEC.

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