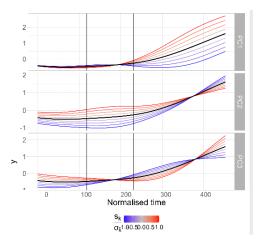
## The evolution of uptalk in Standard Southern British English

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Early 21st century studies of uptalk, the use of statement-final pitch rises instead of falls, in Standard Southern British English (SSBE) indicate that at the time uptalk was an innovation: it was infrequent, though increasingly used (Bradford, 1997), especially by women (Barry, 2008) and highly variable in form, with no systematic distinction from other types of rises (Shobbrook & House, 2003). To investigate its current state, we analysed 977 rising utterances from 29 SSBE speakers (19 female) reading scripted dialogues intended to elicit rises indicating requests for confirmation, uncertainty, negotiation, polar questions, listing, and sarcasm (Table 1). The first three functions are associated with uptalk (Arvaniti & Atkins, 2016) and are predicted to have similar shapes, but should differ from non-uptalk rises if uptalk is now an established SSBE feature. Pitch contours were submitted to Functional Principal Component Analysis (Ramsay et al., 2020); the first three principal components (PCs) reflected differences regarding the starting point and extent of the rise (PC1), the scaling of the rise start (PC2), and the rise's overall convex or concave shape (PC3); see Figure 1. LMERs of the PC coefficients of the input curves and a Generalized Additive Mixed Model (GAMM) (van Rij et al., 2022) confirmed the importance of these differences and showed that gender did not affect shape, but pragmatic category did (Figure 1). The uptalk contours were comparable. Sarcasm had a similar shape but scaled lower, polar questions demonstrated a fall-rise pattern absent from uptalk, while listing had a rise-plateau shape. The results support the prediction that uptalk is establishing, since its form is now stable and distinct from rises of competing functions, with no gender differentiation in either frequency or form.

Table 1. Sample dialogues; the target words are bold and underlined.

Pragmatic Categories	Context	Response
Confirmation Request	What name is your appointment under?	<u>Alanna</u> ?
Uncertainty	What time did you get back last night?	<u>Eleven</u> ?
Negotiation	What should we make for dinner tomorrow?	<u>Lasagna</u> ?
Polar Question	I visited England recently.	Was it <u>rainy</u> ?
Listing	Who did you go to the pub with?	l went with <u><b>Melinda</b>,</u> Malena, and Yolanda.
Sarcasm	Why is David Beckham supporting Qatar?	Because <b>money</b> ?



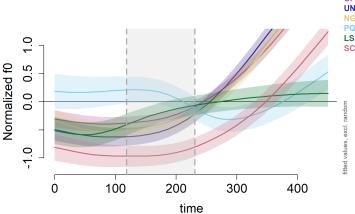


Figure 1. (a) The first three PCs; the lines are PC curves with higher (red) and lower (blue) than the mean (black) PC coefficients. (b) GAMM of the smoothed curves for each pragmatic category; the shaded interval denotes the accented vowel.

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