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Conference Paper · May 2016

DOI: 10.21437/SpeechProsody.2016-32

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# Uptalk in Southern British English

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## Abstract

The present study deals with the realization and function of uptalk in Southern British English (SBE), a variety in which the use of uptalk has been little investigated. Eight speakers (4 male, 4 female) were recorded while taking part in a Map Task and playing a board game. All speakers used uptalk for a variety of functions, but mostly for declaratives particularly to indicate floor holding before a mid-turn pause. A H\* L-H% melody was prevalent in floor holds, with confirmation requests (indirect questions to negotiate common ground with the addressee) being mostly expressed using H\* H-H% (similarly to questions grammatically marked as such). Age differences were not observed, while differences between male and female speakers were small both in terms of realization and uptalk function. The biggest gender-related difference was the use of uptalk for floor holding which was twice as frequent in the data of the female speakers. Finally, differences in the frequency of uptalk between tasks indicate that it is important to examine data from a variety of discourses before firm conclusions can be drawn about the extent and use of uptalk in a given linguistic variety.

**Index Terms:** uptalk, high rise terminal, British English, intonation

## 1. Introduction

The present study deals with the realization and function of uptalk in Southern British English (henceforth SBE). *Uptalk* is used here to designate rising pitch as the end of phrases. Uptalk has been extensively investigated in Australian, New Zealand and American English (among many, [1], [2], [3], [4], [5]), but, with the exception of [6], its use in the UK has not been studied much. To the extent that uptalk in UK varieties has been investigated, e.g. in relation to Belfast and Glasgow English [7], [8], [9], the assumption is that it is a “standard” dialectal feature, i.e. the standard way for speakers of these dialects to make statements [7]. Because of this assumption, this type of uptalk is considered not to have the connotations uptalk has in Australian, New Zealand and American English [7].

Uptalk is realized in a variety of ways across dialects of English. For instance, [3] report that Australian uptalk is realized as either L\* H-H% or H\* H-H%, i.e. as either a dip in F0 followed by a rise or as an overall rise respectively. In [3], New Zealand uptalk is analyzed as reflecting two main tonal configurations, L+H\* H-H% and L\* H-H%. For Glasgow, on the other hand, L\*+H H-L% is proposed as an autosegmental representation of its uptalk [9] which has been impressionistically described as “rise-plateau-slump” [7]. For Southern California English, [4] show that speakers use two main patterns, L\* L-H% and H\* H-H%.

In addition to differences in form, uptalk serves different purposes in discourse across English varieties. Southern California English uses uptalk for both statements and questions

but with different melodies for each: L\* L-H% is used primarily with statements, and H\* H-H% and L\* H-H% with questions [4]. New Zealand English also uses uptalk for both statements and questions [3], with the tunes used for each function becoming increasingly distinct [5]. In Australian English, on the other hand, uptalk is used with statements mostly when the speaker wishes to hold the floor [3]. The use of uptalk for floor holding and the fact that L\* H-H% and H\* H-H% are used for statements, questions and continuations leads [3] to suggest that the intonational difference between these three functions is neutralized in Australian English. The connection of uptalk with continuation is also hinted at in [10] who argues that uptalk in Belfast English is related to list intonation. The widespread use of plateaux (typically found in listing) rather than rises *per se* for floor holds is also reported in [1] for California and Massachusetts English; their results add further support to the idea of a possible link between uptalk and list intonation.

Finally, studies show differences in the use of uptalk related to gender. The differences do not quite fit the popular stereotypes that uptalk is primarily a feature of female speech. Thus, [4] found that uptalk in Southern California is used significantly more for floor-holding by women than men, but both genders used uptalk equally for all other functions, including simple statements. Similar results are reported in [1] who found few differences relating to gender in their study.

Here, Southern British English data were collected with a view to examining whether speakers use uptalk in this variety, and if so for what purposes and in what form(s). This is of interest as [6], a study with speakers of similar demographics to those here, indicated incipient changes in the use of uptalk in SBE. Thus the present study is a first step towards tracking the continuing development and use of uptalk in SBE in the 21<sup>st</sup> c.

## 2. Methods

Spontaneous and semi-controlled speech was recorded and instances of uptalk were qualitatively and quantitatively analyzed using the annotation facilities of Praat [11] with the principles of the Autosegmental-Metrical framework for intonational phonology (henceforth AM) [12].

### 2.1. Speakers

Eight middle class speakers from South-East London (N = 4) and Kent (N = 4) were recorded. Half of the speakers were in their 20s and the other half in their 50s. Each group included two males and two females. The participants were all monolingual and spoke SBE, specifically a variety often referred to as *Estuary English* and sharing features with both RP and Cockney; e.g. some of the speakers replaced [θ, ð] with [f, v] and all replaced (at least occasionally) intervocalic and final [t] with glottal stop [ʔ] or creaky voice (often referred to as *t-glottaling*). The speakers were all part of the same larger social network, but belonged to different generations so as to test, as

far as the small number of participants permitted, whether their speech evidenced any differences with respect to uptalk in terms of frequency, function or form.

## 2.2. Procedures

The speakers were recorded in the home of one of the group's members. The aim was to record them in a familiar environment so as to elicit speech that was as natural as possible. This was essential as it was not clear that uptalk would be in the formal repertoire of these speakers. Experiment conditions were still met, with participants sitting across from each other at a table in a room with no distractions such as television or radio.

The speakers took part in two tasks, two sessions of a Map Task, and a game of Cranium (henceforth Board Game). In the Map Task one participant is given a map with a path (Fig. 1 left) and has to give instructions so the follower can recreate this path on their map (Fig. 1 right) which is somewhat different. The task is primarily cooperative. The two speakers in each subgroup (e.g. younger females) took turns being instructor giver and follower, using different maps for each session. Speakers were not mixed for gender or age so as to confine their style to what they would use with speakers of their generation and gender. Each Map Task session took approximately 2 - 6 minutes (mean = 3.8 min, sd = 1.4).

Unlike the Map Task, Cranium is a competitive game with several categories which allow participants to have a range of conversations related to activities such as drawing, spelling, solving anagrams, answering general knowledge questions, and playing charades. Games last 60 to 90 minutes; only the first 30 minutes of each game were recorded and analyzed (participants could continue if they so wished).

The recordings were made with a Zoom H4nEX solid state digital recorder set to stereo and using the recorder's own microphones. The order of the tasks was counterbalanced: the four older speakers did the Map Task first and then played Cranium, while the opposite order was used for the four younger speakers.

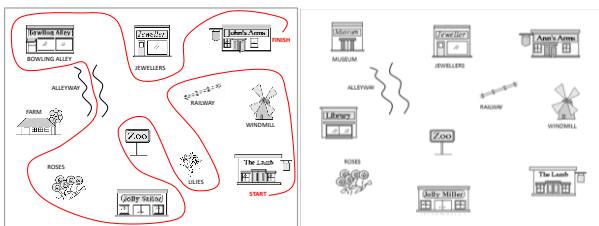


Figure 1: One of the two sets of maps used for the Map Task; instructor giver's map on left; follower's map on right.

## 2.3. Analysis

The corpus consisted of 356 instances of uptalk (a small number of utterances showing extensive overlap between speakers were not analyzed). Uptalk was defined as any instance of F0 rise at the end of a phrase. Most tokens were utterance-final, i.e. followed by a pause; in AM terms they were Intonational Phrase (IP) final. A small number of tokens (approximately 3%) were intermediate phrase (ip) final. The data was annotated in Praat [11] with three types of information. First, the data were annotated with an AM description of the tune, using three accents, H\*, L\* and L+H\*, and two edge tones configurations, L-H% and H-H% (for IPs), and following MAEToBI criteria [12]. Second, the rise onset and end was determined by selecting

the area where the rise occurred and annotating the minimum and maximum F0 using Praat commands (see Figs 2-4 for examples). Finally, each token was classified for discourse function using the categories of [4] (with minor modifications):

1. Question (Q): instances of uptalk in utterances clearly marked as questions, e.g. by inversion or the use of a *wh*-word; an example is shown in Fig. 2.
2. Confirmation request (CR): instances of uptalk where the speaker asks an indirect question designed to negotiate common ground; many, though not all, such instances of uptalk can be answered with 'yes' or 'no' and are by definition final in the speaker's turn; see Figs 3 and 4 (intervals marked CR).
3. Floor hold (FH): instances of uptalk in which the speaker is clearly not asking a question and which are followed by more talk by the same speaker in the same turn; see Fig. 3 (interval marked FH).
4. Statement (S): these were instances of uptalk that did not discernably fill one of the other functions; statements included uptalk that provided new or confirmed given information for the addressee, but also instances in which uptalk was used to express reservation (cf. [13]); see Fig. 4. Unlike floor holds, statements were final in a speaker's turn.

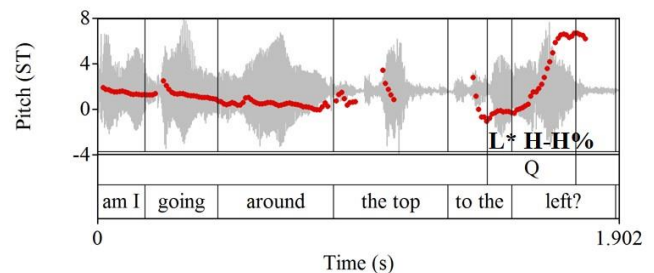


Figure 2: Illustration of measurements in uptalk; speaker YF2, Board Game. The interval marked Q is the F0 rise.

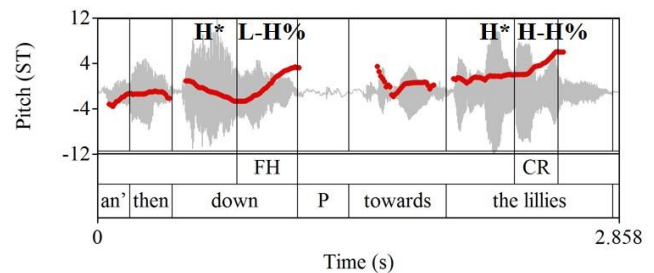


Figure 3: Illustration of uptalk used as floor hold (left) and confirmation request (right); speaker OF1, Map Task.

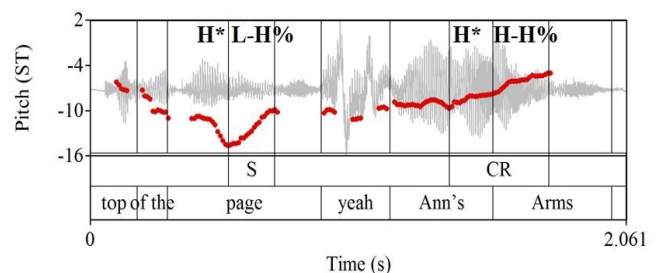


Figure 4: Illustration of uptalk used for a statement (left) and a confirmation request (right); speaker OM2, Map Task.

### 3. Results

#### 3.1. Frequency of SBE uptalk and discourse function

Uptalk was used by all speakers, though they did differ in the extent to which they used uptalk for specific purposes. No pattern relating to age could be discerned: the four younger speakers provided 186 instances of uptalk (13% of their total number of 1413 utterances) vs. 170 from the older speakers (15% of their 1105 utterances). The use of uptalk for each discourse function was comparable across the two age groups with no differences being statistically significant according to  $\chi^2$  tests (see Table 1, top two rows of data).

Gender did not affect the overall frequency of uptalk either: out of 356 tokens, 176 were from the female speakers and 180 from the male speakers (14% and 14.5% of each gender's total number of utterances respectively). There were differences in use, however: speakers of both genders used uptalk equally frequently for statements, questions and confirmation requests (all comparisons, n.s.). Women, however, used uptalk for floor holds almost twice as much as men did [ $\chi^2$  (df 1) = 5.59,  $p < .05$ ]; see Table 1 (bottom two rows).

Table 1: Percentages of uptalk by discourse function, and age (top) and gender (bottom)

	S	FH	Q	CR
older	35%	39%	12%	14%
younger	37%	28%	20%	15%
females	30%	44%	12%	14%
males	41%	23%	21%	15%

Overall, uptalk tokens were 14% of the 2518 utterances analyzed, but they were unevenly divided between tasks: 129 tokens were from the Board Game and 227 from the Map Task; the difference was statistically significant [ $\chi^2$  (df 1) = 13.75,  $p < .001$ ]. Uptalk was also a larger percentage of the utterances in the Map Task: 27.3% of the Map Task utterances ended in a rise, as opposed to 7.6% in the Board Game.

Statistically significant differences relating to the function of uptalk were also found in the data (see Fig. 5). As can be seen, the majority of instances of uptalk were used either for statements or floor holds; the two together (what [1] term “non-questions”) were more frequent than uptalk used for questions and confirmation requests together [ $\chi^2$  (df 1) = 26.96,  $p < .001$ ]. Similar results apply if data are broken down into four functions: statements and floor holds were equally frequent, as were questions and confirmation requests; both statements and floor holds were significantly more frequent than both questions and confirmation requests [S vs. Q,  $\chi^2$  (df 1) = 13.09,  $p < .001$ ; S vs. CR,  $\chi^2$  (df 1) = 16.39,  $p < .001$ ; FH vs. Q,  $\chi^2$  (df 1) = 10.86,  $p < .001$ ; FH vs. CR,  $\chi^2$  (df 1) = 13.09,  $p < .001$ ].

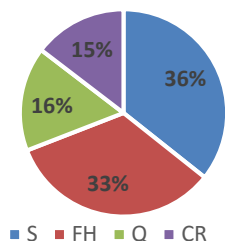


Figure 5: Distribution of phrases ending in uptalk by discourse function; data pooled over tasks; C = confirmation request; F = Floor holding; Q = question; S = Statement.

#### 3.2. The phonetics of SBE uptalk

The form of uptalk was examined by measuring three aspects of the rises, their duration (in ms), excursion size (in semitones) and F0 velocity (in semitones/sec). These data were initially analyzed with respect to gender and function. Gender had no effect on any of these variables, so in follow-up analyses data were pooled for gender (distributions were unimodal). The data were analyzed by means of ANOVAs with speaker as random factor, function (Q, S, CR, FH) as predictor, and duration, excursion size and F0 velocity as dependent variables.

The duration of the rise was significantly affected by function [ $F(3, 28.5) = 12.457$ ,  $p < .0001$ ]; see Table 2. Post-hoc Tukey tests showed that confirmation requests had a consistently longer rise compared to all other discourse functions of uptalk [ $p < .001$  for all pairwise comparisons]. The durations of the rises used for other functions did not show statistically significant differences. F0 velocity was also affected by discourse function [ $F(3, 29.147) = 3.1$ ,  $p < .05$ ]. The effect was again due to confirmation request rises which were executed with consistently lower velocity than other uptalk [ $p < .05$  for all pairwise comparisons]; see Table 2. In short, confirmation requests had the longest and slowest rises. This difference between confirmation requests and other types of uptalk was supported by the results on excursion size which was not affected by discourse function [ $F < 1$ ]; see Table 2. In other words, rises were comparable in excursion size but differed in duration leading to differences in F0 velocity. These results were also supported by the negative correlation between F0 velocity and rise duration [ $r = -0.371$ ,  $p < .001$ ]; the correlation was much higher for male than female speakers [for females,  $r = -0.311$ ,  $p < .001$ ; for males,  $r = -0.439$ ,  $p < .001$ ].

Table 2: Means and standard errors (in brackets) of rise duration (top), F0 velocity (middle) and rise excursion (bottom) by discourse function

	S	FH	Q	CR
Rise (ms)	153 (5.8)	168 (7)	174 (12.6)	262 (17)
ST/sec	32 (1.74)	30 (1.6)	33 (2.3)	23 (1.8)
Rise (ST)	4.6 (0.3)	4.7 (0.3)	5.1 (0.3)	4.95 (0.2)

In addition to the above, the realization of the rises was affected by phonological structure. First, a small but significant effect of the type of pitch accent on F0 velocity was found, with velocity being slightly higher after a L\* than a H\* accent [L\* mean = 28.2 ST/s, sd = 19; H\* mean = 27.8 ST/s, sd = 16.4;  $F(2, 20.354) = 5.97$ ;  $p < .01$ ]. The type of pitch accent used did not affect the duration or excursion of the rise, however. On the other hand, the duration of the rise was significantly affected by the type of edge tones used [ $F(1, 12.27) = 12.498$ ,  $p < .01$ ], with L-H% showing a shorter rise than H-H%: H-H% was on average 200 ms long (sd = 17.5) vs. 172 ms for L-H% (sd = 18). Rise excursion and F0 velocity were not affected by the type of edge tones used.

#### 3.3. The phonology of SBE uptalk

The data also showed differences in the distribution of pitch accents and particularly of edge tones with respect to discourse function. Clear differences emerged particularly with respect to floor holds, on the one hand, and questions and confirmation requests on the other: floor holds ended primarily in L-H%, while questioning utterances ended overwhelmingly in H-H%. Statements proper, on the other hand, were almost evenly divided between L-H% and H-H% (see Fig. 6). The pitch accent

was less well correlated with the discourse function of uptalk: e.g. L+H\* was used when speakers had a particular reason to highlight the word in focus, not because of the way they intended to use uptalk. Further, in many instances the pitch accent was not on the final word but on an earlier one (particularly in statements indicating reservation), so it was not as closely connected to the uptalk rise.

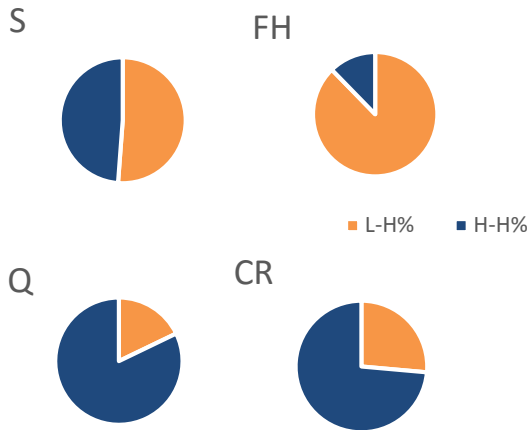


Figure 6: Distribution of edge tone configurations by discourse function; data pooled over tasks; C = confirmation request; F = Floor holding; Q = question; S = Statement.

#### 4. Discussion & Conclusions

The data discussed above clearly show that speakers of SBE do use uptalk. The rate at which uptalk is used in SBE is lower than what is reported in both [1] – which was based on narratives, in which uptalk is very frequent – and [4] – which was based on a Map Task and thus is partially comparable to the present corpus; nevertheless the amount of uptalk in the present data is not negligible. Further, the data show that uptalk is used for similar purposes as in other English varieties that are better known for their use of uptalk: uptalk in SBE is used to make statements, to ask both direct and indirect questions designed to negotiate common ground with the addressee (what are here called *confirmation requests*), and especially to hold the floor during a longer turn in a dialogue. This particular use is of interest because in some ways it differentiates SBE from other varieties in which uptalk has been investigated. For instance, both [1] and [4] report extensive use of plateaux as a means of indicating floor hold; in the present corpus, plateaux for floor holding were also attested but were rare: speakers used either a rise (uptalk) or a fall instead. In addition, SBE speakers used uptalk for floor holding mostly IP-finally and before a relatively long pause to indicate that they intended to continue.

Floor holds were also the function of uptalk that showed the largest gender-related differences in the present sample. Uptalked floor holds were twice as frequent in the data from the female speakers (cf. [4]). The other uses of uptalk, however, were comparable across males and females. This result agrees with recent findings from other varieties, such as those of [1] and [4], who report few gender-related differences with respect to uptalk. This is of special significance in the present data which (unlike [1] and [4]) included older males, as it indicates that the various uses of uptalk are neither the exclusive realm of female speakers nor an innovation exclusive to the younger participants' generation. Although research on historical data is

needed to determine whether the use of uptalk by older males is a recent phenomenon or an established pattern, it is clear that if uptalk is an innovation in SBE it is by now adopted by older as well as younger speakers. Further, the more stable melodic patterns found here can be juxtaposed to the variability reported in [6] who, some 12 years prior to the present study, found that a large number of different melodies were used for uptalk in SBE. The fact that the melodies here were consistent and showed little variation between speakers based either on age or on gender could indicate that the use of uptalk in this group reflects consolidated ways of using uptalk in SBE in general. On the other hand, however, this corpus was elicited from speakers who were from the same (relatively broad) community of practice. Because of this limitation, it is clear that research with a larger and more varied sample would be necessary before more firm conclusions are drawn.

Differences in the use of uptalk were also found with respect to task, in that uptalk was twice as frequent in the Map Task as in the Board Game. Given that the corpus included less speech from the Map Task than the Board Game, it is clear that the former, a cooperative task, resulted in greater use of uptalk. Though more research on this point is needed, the results indicate that it is not safe to reach conclusions about the use of uptalk in a given linguistic variety unless a variety of tasks requiring different discourse strategies is investigated. Had the present study included only board game data, the conclusion would have been that uptalk is rather rare in SBE.

As mentioned, the speakers in the present study used two main melodies for uptalk and systematically differentiated between them in terms of function. Confirmation requests were expressed mainly by H\* H-H%, a pattern that can be characterized as a *high rise terminal* ([7]; see Figs 3 and 4). Questions also used this pattern as well as L\* H-H% (a L\* H-H% question in shown in Fig. 2). In contrast floor holding when uptalked was typically realized with H\* L-H%, showing a marked dip followed by a final rise; the difference between a typical floor hold and a confirmation request is also illustrated in Fig. 3. These general differences indicate that by and large when uptalked questioning utterances use high pitch while non-questions involve low pitch in some way, and this difference allows speakers to indicate relatively clearly whether they are making a statement or asking a question. This result is similar to what is found in other varieties in which it is increasingly shown that speakers do distinguish between pitch rises for statements and questions (cf. [1], [4], [5]). In turn, this provides further evidence that the negative stereotypes about the insecurity of uptalking speakers – which are based on the assumption that such talkers “make statements as if they were asking questions” – is largely misplaced. With respect to SBE, it is also important to note that the distinctions between statements and questions were largely related to phonological form, in that phonetic realization (as expressed in F0 velocity, and the duration and excursion of the rises) was not systematically related to discourse function. This result serves as a reminder that the study of uptalk will require both phonetic measurements and qualitative phonological analysis if the phenomenon is to be fully described and understood.

In conclusion, the present data show a stable pattern of use of uptalk in Southern British English with little differentiation among speakers either in terms of age or in terms of gender. This indicates that uptalk may be gradually becoming the norm in SBE, while speakers retain a principled distinction between statements and questions in terms of the rising melodies used for each.

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