UPSPEAK[1] ACROSS CANADIAN ENGLISH ACCENTS: ACOUSTIC AND SOCIOPHONETIC EVIDENCE[*]

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This study reports findings from the analyses of 'upspeak' or 'uptalk' across Canadian English accents. 25 native speakers of Canadian English, among whom 13 females and 12 males aged between 12 and 70, participated in the study. They hailed from 8 Canadian provinces, namely Alberta, New Brunswick, Newfoundland, Nova Scotia, Ontario, Quebec, Prince Edward Island and Saskatchewan. Their speech productions, viz. spontaneous-produced speech and read speech were analyzed both auditorily and acoustically and results demonstrated and confirmed Shokeir's (2008) recent conclusion on Southern Ontario English that 'upspeak' is a feature of Canadian English. Secondly, findings revealed that this intonational feature occurs more frequently in spontaneously-produced speech than in speech obtained from reading a text aloud. Lastly, the study confirms previous conclusions on some other native English whereby 'upspeak' is more prevalent or widespread among female and younger speakers than male and older speakers.

1.   Introduction

For close to four decades, there have been several reports of a linguistic feature and particularly an intonational phenomenon in native varieties of English across the globe. This feature, argued to have rapidly spread through native English-speaking communities around the world, has been variously termed, namely 'HRT' (High Rising Tone or Terminal) and Australian Questioning Intonation (AQI) in Australia (Fletcher and Harrington, 2001), HRT in New Zealand (Warren 2005), 'QI' (Questioning intonation) or 'uptalk' in the United States of America (Ching 1982) and 'upspeak' in the United Kingdom (cf. Bradford 1997). Even recent surveys on some non-native English, also called New Englishes (Kachru 1982, 1985, 1986), have shown that 'upspeak', which tends to gradually transfuse these varieties of English, appears to be a universal feature of English or a cross-cultural phenomenon (cf. Talla Sando 2006a).

'Upspeak' or 'uptalk' or again High Rising terminal (HRT) is a linguistic and more specifically an intonational feature whereby declarative statements, with no interrogative undertones and which under normal circumstances are expected to have a falling tone, surprisingly end on an upward inflection or are uttered with a rising pitch movement. Shokeir (2008:14) defines it as "the semantically bleached use of a rising intonation pattern over a declarative sentence". Phonetically, 'upspeak' has been defined by Guy and Vonwiller

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(1989) as a tune that rises to a pitch level 40% higher "from where the rise commences". Similarly, Ladd (1996:123) argues that HRT in American and Australian English is characterized by a high fundamental frequency (f0) which begins on the final accented syllable close to the end of the statement and goes up in frequency (up to 40%) to the end of the intonational phrase. Figures 1 and 2 are exemplifications of phonetic realizations of 'upspeak' as proposed by Guy and Vonwiller (1989):
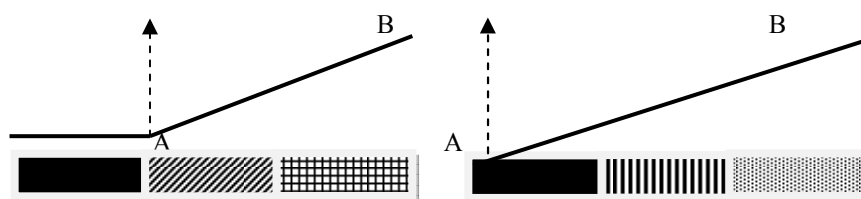
Figures 1 and 2: Phonetic realizations of 'upspeak' (after Guy and vowiller 1989)

Figure 1 and figure 2 display instances of phonetic implementations of 'upspeak' on multisyllabic words and trisyllabic words in particular. On figure 1, there is a level pitch movement on the first accented syllable of the word up to point A (onset of second syllable) where the rise begins. On figure 2 on the contrary, the rise commences straight on the first syllable of the word with no previous level tone.

Another phonetic realization of 'upspeak' resulting from my acoustic analyses of data on Canadian English is shown on figure 3.
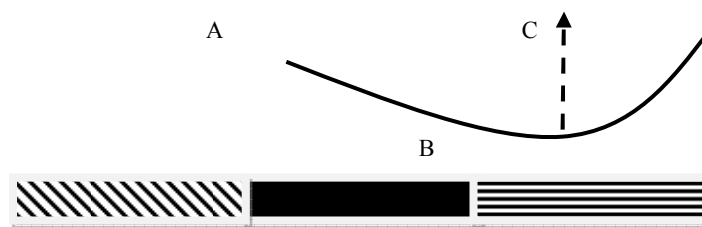
Figure 3: A phonetic implementation of 'upspeak' (after Talla Sando 2009)

In contrast to figures 1 and 2, figure 3 presents a phonetic context in which there is, in the first place, a falling pitch movement from the preceding or antepenultimate syllable of the trisyllabic word to the onset of the last syllable (from A to B) and, in the second place, a rising tune on the penultimate syllable (which begins from B and goes up to C). It is important to note that the rise can begin on any accented syllable, but must end on the last syllable.

2. Some previous studies on 'upspeak'

As pointed out earlier on, 'upspeak' has been documented in many native varieties of English around the world. As early as 1966, Benton noted a

distinctive feature in the speech of Maori schoolchildren in New Zealand in the following terms:

> A distinctive rising intonation, especially marked in the speech of 5 to 8 year old children, but present in a modified form in the speech of older children too, was encountered in the Bay of Islands area, and in Hawkes Bay and Whanganui, as well as in one Tuhoe settlement. All but the latter were areas where the children's knowledge of Maori is negligible, and any European children attending the schools seemed to follow the Maori children's speech patterns (Benton 1966:171).

Prior to Benton's (1966) observations, there had been a report by Mitchell and Delbridge (1965:56) on Australian English who had written that "the pupil is inclined to end with a rising terminal a sentence which would normally fall away to a low terminal". From all indications, 'uptalk' seems to have originated in Australia and in New Zealand since there are no further records which point to its early existence in any other varieties of English (cf. Allan 1990), apart of course from anecdotal evidence or speculative statements that it began in American English. Since Benton's (1966) study, there have been several other studies on High Rising Terminal (henceforth HRT) (cf. Britain, 1992; Ainsworth, 1994; Warren and Brazil, (2000). Based on a small corpus, Allan (1990) conducted a study on HRT in New Zealand English and found that Maori women used more HRTs than Pakeha women. This shows that in the early 90s in New Zealand, HRT was not only viewed as typical of younger speakers, but also as a feature of female speech. Similarly, Britain (1992) and Warren and Brazil 2000) argue that female speakers in New Zealand use HRTs more frequently than male speakers. Britain (1992:92) goes further to note that female speakers use HRTs to "show deference to the hearer or alternatively hesitation about the validity of what they are saying". Quoting Eckert (1989:253), Talla Sando (2006b) holds that HRT in New Zealand is associated with subordination and lack of power.

In Australia, there have been numerous surveys on HRT, otherwise known as Australian Questioning Intonation (AQI) (cf. Adams 1969, Courtney 1996, Fletcher and Harrington 2001, Guy and Vonwiller 1989, Horvath 1985, Horvath *et al* 1986, Horvath and Vonwiller 1989). Horvath (1985) and Courtney (1996:27) found for example that AQI was a feature of teenagers, females and working class, a conclusion challenged by Fletcher and Harrington's (2001) whose study revealed that statement high rises in Australia are used by both male and female speakers. In the same way as Eckert (1989) associated HRT in New Zealand with subordination and lack of power, Fletcher and Harrington (2001:227) hold that AQI "…has been associated variously with lack of confidence, low social status, extreme youth, and a high degree of friendliness". Guy and Vonwiller (1989) have questioned the validity of these conclusions drawn on AQI and have argued that there is no uncertainty, hesitancy or lack of self-confidence in speakers' attitude while they use HRT or AQI. The following example is supplied by Guy and Vonwiller (1989:24) to support their claim:

(1)   Oh. Occasionally Mrs L… used to blow up kids when they hadn't done anything. And once, a girl and I were walking down the stairs, and she touched a doorknob or something, 'cause she didn't realise what was *wrong with it* ↑And it fell *off*↑ and she got the cane for *breaking it* ↑ And I knew very well she *hadn't broken it* ↑And I tried to tell the teacher. The teacher was really mean, you know (p. 24).

In Guy and Vowiller's (1989) example, the upward-pointing arrow indicates the portion of the utterance where the rising pitch movement occurs. They argue that there is no indication of uncertainty in the above narrative because the speaker is in full command of the fact and develops the story well without hesitation or looking forward.

In American English, evidence of the use of rising intonation over declarative statements has been gathered since the early 70s (cf. Tarone 1973, Edelsky 1979, Ching 1982). For example, Ching (1982) conducted a survey on some speakers in Memphis, Tennessee and used Austin's (1962) Speech Act Theory as a framework for his analysis of 'uptalk' in American English. He argued that speakers from Memphis used this feature as an "apologetic request for correction". He further claimed that 'uptalk' was used by participants in his survey as a way of soliciting or requesting an oral response from the hearer, hence its "directive illocutionary force". Example 2 is given by Ching to back his claim:

(2)   … I telephoned this male high school teenager at his summer job where he sold pianos for a music store. When he answered my request for directions to his place of work, he replied: "Next to <u>Seesel's?</u> the high rise next <u>door?</u> That's Ammons." I asked the informant why he used the question intonation. He said that in describing the location of the music store to inquirers or potential customers in official business phone calls, he often used this speech pattern not only to call attention to familiar landmarks near the store, but to ascertain whether they knew the sites he named. He commented that if there was no response after the question intonational contours, he then gave the address, 1741 Union, because he assumed the listener did not know the places pronounced with question intonation (Ching, 1982:103).

In example 2, the two nuclear tones on which the rising intonation occurs are underlined. Ching (1982) also notes that speakers involved in his study used the rise on declarative utterances to show deference, an interpretation which was

already proffered to account for the use of the HRT and the AQI in New Zealand and Australia respectively.

In the United Kingdom, rising intonation over declarative statements has also been hotly debated (Bradford 1997, Marsh 2006). Bradford (1997) investigated the phenomenon of rising intonation over declarative statements in the UK which she called 'upspeak' and claimed that it was a feature of the intonation pattern of young people and female speakers in particular. Her conclusion compares with some made by linguists on New Zealand and Australian English (cf. Allan 1990, Horvath 1985). Bradford (1997) expatiates on two key functions of 'upspeak' in British English, namely the affective and the referential function. Elaborating on the affective function, she notes that 'upspeak' serves to reduce the social distance between the speaker and the hearer(s) (p. 34). With regard to the referential function of 'upspeak' in British English, Bradford (1997:34) claims that the 'upspeaker' presents 'new information' as if it were part of the "common ground", thereby pointing out that the content of that part of the discourse is to be perceived or assumed by the participants in the conversation as mutual interest.

Unlike other native varieties of English in which the phenomenon of rising intonation over declarative utterances has been extensively investigated, evidence for the use of 'uptalk' in Canadian English has been very recent (cf. Shokeir 2008). Without understating facts, Shokeir's survey is the only formal study so far on 'uptalk' in Canadian English. It should be pointed out right away that her findings were limited to Southern Ontario English, which implies that her results can be generalized only after more surveys are carried out on other accents of English across the other Canadian provinces. Shokeir's (2008) findings on 'uptalk' in Southern Ontario English are very revealing. She found for example that "younger women use rising contours on 67.3% of sentences and older women 63.2%. Men use rising contours much less (on 30.1% of tokens), but like the women, age does not affect contour use (32.7% for younger men and 27.3% for older men)". It is interesting to note that in almost all the studies done in other varieties of English, there is a general trend whereby female speakers use rising intonation over declarative utterances more frequently than male speakers. Age appears to be a more or less significant factor.

3.   Methods
3.1   Participants

25 Canadian English speakers from 8 Canadian provinces were selected for the purpose of this study. Table 1 displays a distribution of these speakers:

Provincial origin	Female	Age	Male	Age	Total
Alberta	1	70	1	42	**4**
	1	44	1	23	
New Brunswick	1	68	1	34	**2**
Newfoundland	1	41	1	26	**3**
	/	/	1	36	
Nova Scotia	1	55	1	38	**3**
	/	/	1	12	
Ontario	1	37	1	53	**2**
Quebec	1	57	1	40	**3**
	1	13	/	/	
Prince Edward Island	1	29	1	32	**4**
	1	51	1	27	
Saskatchewan	1	60	1	36	**4**
	1	45	/	/	
	1	20	/	/	
Total	**13**	/	**12**	/	**25**

Table 1: Participants in the study

From Table 1, participants are distributed in terms of three major parameters, namely national origin (provincial origin), age and sex. In all, there were 13 females and 12 males. The youngest speaker was a 12-year old boy from Nova Scotia while the oldest was a 70-year old lady from Alberta. All spoke English as their native tongue and had attended at least secondary education.

3.2   Data

Data were obtained from two major sources. The first source was through personal interviews with 6 of the participants. Among the 6, there was a female from Saskatchewan, another one from New Brunswick and the last one from Prince Edward Island. The remaining 3 were all males, 1 from Alberta, 1 from Prince Edward Island and 1 from Nova Scotia. During this phase, participants were asked to recount their life stories and each of them produced a narrative. In other words, they were asked to introduce themselves and to talk about their families, their professions, etc.

The second source of data was IDEA[2] (the International Dialects of English Archive). 19 speakers first read one of two passages, namely 'the

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[2] IDEA was created by Professor Paul Meier of Kansas University in 1997 and is an online archive of recordings of English accents from around the world.

rainbow passage' and 'comma gets a cure'. Next, they were also requested to produce a narrative in which they talked about themselves, their family backgrounds, their professions, etc.

3.3   Data analyses

Data were analyzed both auditorily and acoustically. During the auditory analyses, declarative sentences from both the reading passages and the spontaneously-produced speeches were all marked with an 'F' (falling tone) and an 'R' (rising tone). Examples 3a and 3b are illustrations of the auditory analyses of the data:

(3) a. Well, here's a story for you: Sarah Perry was a veterinary nurse who had been working daily at an old zoo in a deserted district of the territory (F). So she was very happy to start a new job at a superb private practice in North Square near the Duke Street Tower (F). That area was much nearer for her and more to her liking (F). Even so, on her first morning, she felt stressed (F). She ate a bowl of porridge, checked herself in the mirror and washed her face in a hurry (F). Then she put on a plain yellow dress and a fleece jacket, […] and headed for work (F).

   b. Well, I started working for Don in, uh, 2001 (R). And we started with the Bible (F), Bible translation (F), and that lasted for about three-and-a-half years (F), on and off (R). Then we finally got it done last May (F). And then when we weren't, when we weren't working on that, we were working on the, uh, dictionary(R). Say now, like, uh, translating the English, uh, words into Blackfoot (R). And we're still doing that right now (F). Like, probably when we were waiting for you (F), that's what we were working on was the dictionary (F).

Example 3a is an auditory analysis based on an excerpt of (first paragraph) the reading passage 'comma gets a cure'. Example 3b shows an auditory analysis of an excerpt of a spontaneously-produced speech by a female speaker from Alberta. 'F' in parentheses stands for fall or falling pitch movement and 'R' stands for rise or rising pitch movement.

In addition to the auditory analyses, data were also analyzed acoustically. The acoustic analyses were carried out with the help of PRAAT which displays the fundamental frequency traces, the intensity traces and the waveforms of the utterances.

3.4 Findings

Findings for female and male speakers are presented first separately and then differences between both sexes in terms of the use of 'upspeak' are captured diagrammatically. Table 2 displays the results of the analyses of 'upspeak' in the female data:

Provincial origin	Female	Age	Tokens Spontaneous speech	% upspeak in spontaneous speech	Tokens Read speech	% upspeak in read speech
Alberta	1	70	7	57.14	19	00
	1	44	5	20	17	00
New Brunswick	1	68	12	83.33	5	00
Newfoundland	1	41	22	86.36	10	20
Nova Scotia	1	55	11	45.45	6	00
Ontario	1	37	6	66.66	6	00
Quebec	1	57	21	52.38	11	00
	1	13	9	77.77	19	00
Prince Edward Island	1	29	29	89.65	6	00
	1	51	38	73.68	11	00
Saskatchewan	1	60	18	27.77	11	9.09
	1	45	23	13.04	15	00
	1	20	13	69.23	8	00
Total and means	**13**	/	**214**	**58.65%**	**144**	**2.23%**

Table 2: 'Upspeak' in female speech

From table 2, 214 tokens were analyzed in the spontaneously-produced speech by females and a total of 58.65% of 'upspeak' was identified in the whole data. In the read speech in contrast, 144 tokens were analyzed and only 2.13% of 'upspeak' was identified in the whole data. It is worth mentioning that females use more 'upspeak' in speech produced spontaneously than in read speech.

Table 3 shows the results of the analyses of 'upspeak' in the male data in both the spontaneously-produced and read speech:

Provincial origin	Male	Age	Tokens Spontaneous speech	% 'upspeak' in spontaneous speech	Tokens Read speech	% 'upspeak' in read speech
Alberta	1	42	15	26.66	18	00
New Brunswick	1	23	10	00	5	00
Newfoundland	1	26	10	20	6	16.66
	1	36	22	18.18	15	00
Nova Scotia	1	38	15	33.33	6	00
	1	12	8	00	16	00
Ontario	1	53	9	66.66	21	19.04
Quebec	1	43	15	66.66	14	00
Prince Edward Island	1	32	7	00	11	00
Saskatchewan	1	36	12	41.66	11	9.09
Total and means	8	/	**123**	**34.14%**	**160**	**5.59%**

Table 3: 'Upspeak' in male speech

As shown in table 3, 123 tokens were analyzed in the speech spontaneously produced by the male participants and 34.14% of 'upspeak' was indentified in their data. In the read speech, 160 tokens were identified and analyzed and the percentage of 'upspeak' found in the data was 5.59. As in the case of female speakers, male speakers use more 'upspeak' in spontaneous than in read speech.

To capture the differences between male and female speakers in terms of the frequency of use of 'upspeak', consider figure 4:
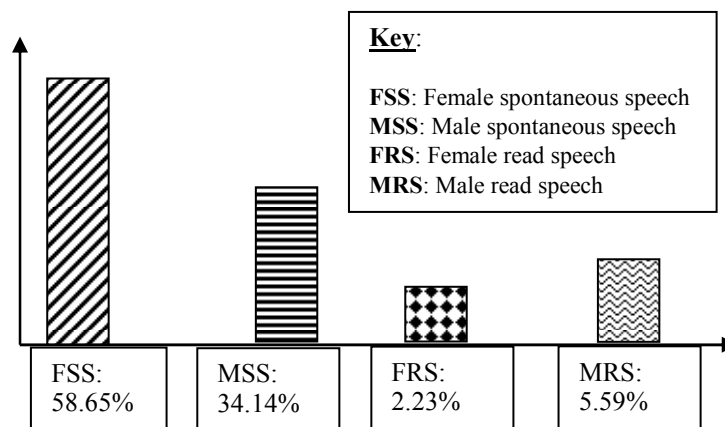

Key:

FSS: Female spontaneous speech
MSS: Male spontaneous speech
FRS: Female read speech
MRS: Male read speech

FSS: 58.65%
MSS: 34.14%
FRS: 2.23%
MRS: 5.59%

Figure 4: Female and male use of 'upspeak' in Canadian English

As shown on figure 4, there are differences between female and male Canadian English speakers with regard to the use of 'upspeak'. In speech produced spontaneously, female Canadian English speakers use this feature more frequently than male speakers (58.65% as against 34.14% for the latter). In data obtained from read speech in contrast, male speakers make more use of 'upspeak' than female speakers. But the difference in this case is not very significant. The findings resulting from the analyses of spontaneously-generated data confirm previous results on other native varieties of English and more specifically Shokeir's (2008) conclusions on Southern Ontario English whereby females from that area use 'uptalk' or 'upspeak' more frequently than males.

Furthermore, data analyses also revealed that there are differences between younger and older speakers as far as the use of 'upspeak' is concerned. Figure 5 displays these differences:
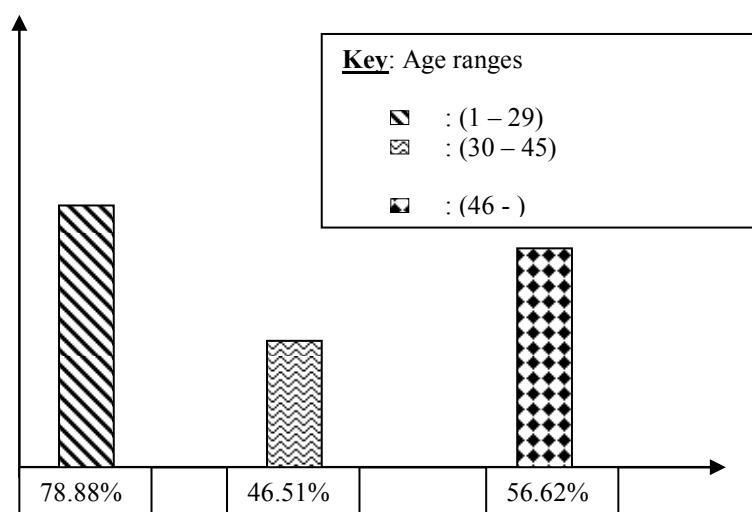

Figure 5: **Age and use of 'upspeak' in Canadian English**

Figure 5 displays the percentages of use of 'upspeak' in Canadian English with respect to the age parameter. Results indicate that younger speakers (aged between 1 and 29) make extensive use of 'upspeak'. They differ from middle-aged and older speakers in that they use the feature more frequently than them. On the other hand, findings suggest that older speakers seem to use 'upspeak' more frequently than middle-aged speakers. One of the conclusions of this study which stipulates that younger speakers use 'upspeak' more frequently than older ones differs from Shokeir's (2008) who did not find any correlation between speakers' ages and their use of 'uptalk' in Southern Ontario English.

4.   Conclusion

The purpose of this study was to investigate the linguistic phenomenon of 'upspeak' across Canadian English accents. Findings indicate that female speakers across Canada make more use of this intonational feature than male speakers. This confirms previous conclusions made on other native varieties of English (cf. Bradford 1997, Guy and Vonwiller 1984, Warren 2005) and particularly Shokeir's (2008) recent conclusions on Southern Ontario English. Also, it was revealed that younger speakers across Canada seem to favor this speech pattern more than middle-aged and older speakers. This finding contrasts with Shokeir's (2008) who found that speakers' ages did not have any impact on their use of 'uptalk' in Southern Ontario English. Another important finding is that 'upspeak' occurs more often in speech produced spontaneously than in speech obtained from reading texts aloud. In other words, phonostylistically, the more speech becomes formal (read speech being considered as more formal than spontaneous speech sometimes viewed as casual), the less likely 'upspeak' is to occur. One of the reasons why 'upspeak' occurs more frequently in spontaneous than in read speech may be that in read speech, pauses are clear-cut and there is no room for the reader of the text to hesitate while thinking about what to say next.

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