UNDER-REPORTING OF CANADIANISMS IN SURVEYS

Ryan Heffernan and Janet Kelly

1. Introduction

Using surveys to carry out linguistic research in Canada is a common practice among researchers. Notable examples of this include dialect topography studies of the Golden Horseshoe (Chambers, 2004) and of New Brunswick (Burnett, 2006). It cannot be denied that surveys are an extremely useful research tool, but they do have shortcomings. One of these shortcomings was documented by Gibson (1977) when she stated that respondents may be unaware of how frequently they use the word "eh" and are likely to under-report this fact in a survey. We propose to extend this idea to general Canadianisms to illustrate how this can be a major shortcoming in survey-based linguistic research. We argue that surveys as a basis for linguistic research are flawed due to Canadians' under-reporting of their use of Canadianisms in their speech.

In the next section we will explain the methodology behind our research, followed by the results and an analysis of the data. Finally, we present the conclusions that can be drawn from our research and mention potential areas for future work.

2. Methodology

Our method of compiling statistics was simple but very informative. Our research was divided into two main parts. The first part was a written survey and the second was a verbal recording. Twenty respondents took part in the study.

The survey was designed to establish how people believe that they speak. People were given the option of either sounding stereotypically Canadian or stereotypically American. Our subjects were also supplied with various words which Canadians say slightly different than Americans and they were asked if they would say these words the same way that an American would. Next, the survey listed pairs of words and asked respondents whether they pronounced the words similarly.

The reading for the verbal recording consisted of 10 sentences which were chosen to elicit from respondents the words in our survey. We then listened to the pronunciations in the recordings to determine whether the respondents had accurately represented their speech styles on the survey.

3.   Results and Analysis

In this section we present the results of our study and examine their significance.

3.1   Canadian Raising

In the first question of the survey, respondents were given a list of words and asked to indicate whether they felt that they pronounced each word the same as a typical American would. The words given were mostly words that would feature the phenomenon of Canadian Raising (Chambers, 1973), where the onset of diphthongs /aw/ and /ai/ are raised. The results are shown in **Figure 1**.
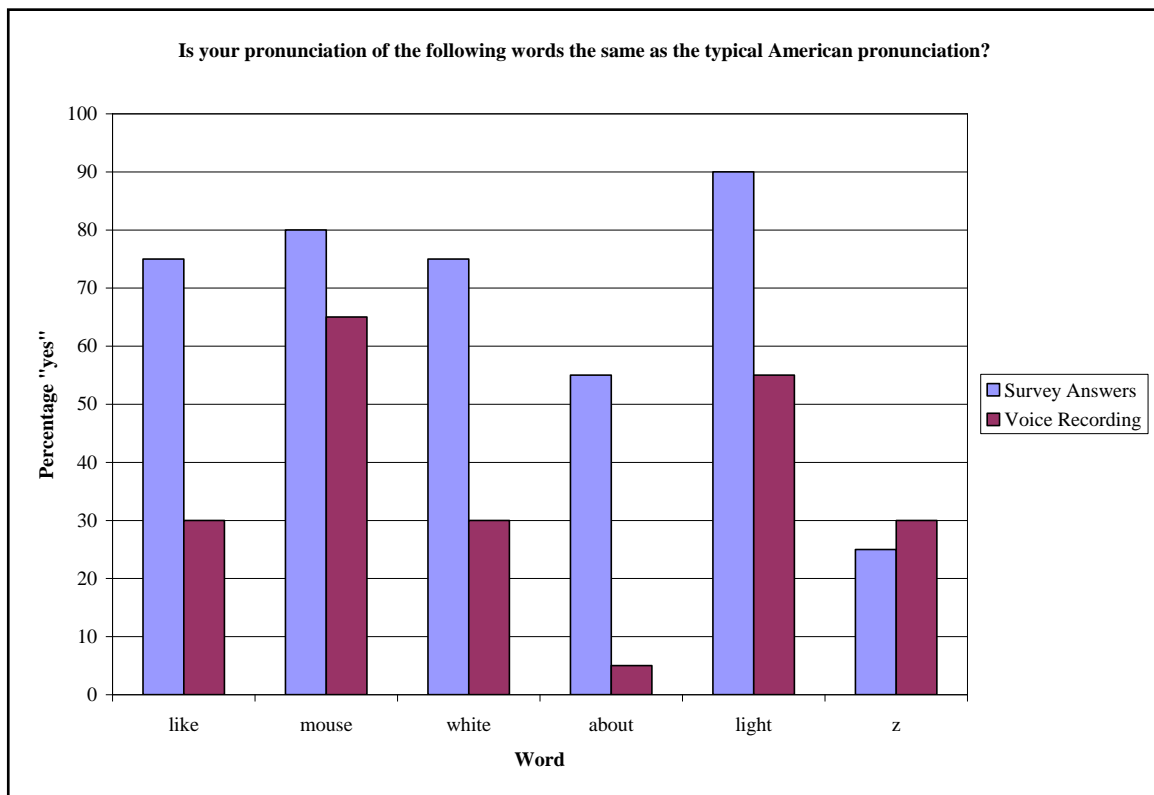
Is your pronunciation of the following words the same as the typical American pronunciation?

Word	Survey Answers	Voice Recording
like	75	30
mouse	80	65
white	75	30
about	55	5
light	90	55
z	25	30

Figure 1: Results from Survey Question 1

The blue bars on the graph indicate the percentage of respondents who answered "yes" to the survey question, and the purple bars represent the percentage of respondents whose voice recordings did not demonstrate Canadian Raising for the given word. In every case of potential Canadian Raising (i.e., every word in this question except "z"), the majority of respondents indicated on the survey that they thought they pronounced the words the same as an American would. However, for the words *like, white*, and especially *about*, the majority of respondents demonstrated Canadian Raising in their voice recordings. In other words, they did *not* pronounce the words like a typical American. It is interesting to note that the stereotypical Canadian Raising example

about demonstrated the highest rate of Canadian Raising. The words *mouse* and *light* showed less Canadian Raising, but in both cases there was still some under-reporting.

It should be noted that the concept of Canadian Raising was not explained to respondents, so their answers reflect their personal ideas of Canadian/American pronunciation differences. We decided that explaining this to respondents would potentially affect their pronunciations when we recorded their voices and skew our results. It is likely that some respondents, who were not linguists or linguistic students, were unaware of Canadian Raising. In this case, it may seem slightly inappropriate to accuse them of under-reporting their Canadian Raising since they were not even aware of the phenomenon in the first place. In order to get some idea of the confidence level we can have in these results, we asked two "control" questions.

The first of these controls is the final category in Figure 1, relating to the letter "z". We decided it was reasonable to assume that the difference between the Canadian and American pronunciation of the letter "z" (*zed* vs. *zee*) was general knowledge. The fact that almost everyone correctly reported their pronunciation of the letter "z" and the fact that a strong majority of respondents indicated that they do not pronounce it like an American indicates that in general our respondents were aware that there is a difference between the English dialects of Canada and America.

The second control was designed to specifically determine whether respondents were aware of Canadian Raising. Question 6 of the survey asked respondents if they thought the popular stereotype of Canadians saying "aboot" was accurate (see **Figure 2**).
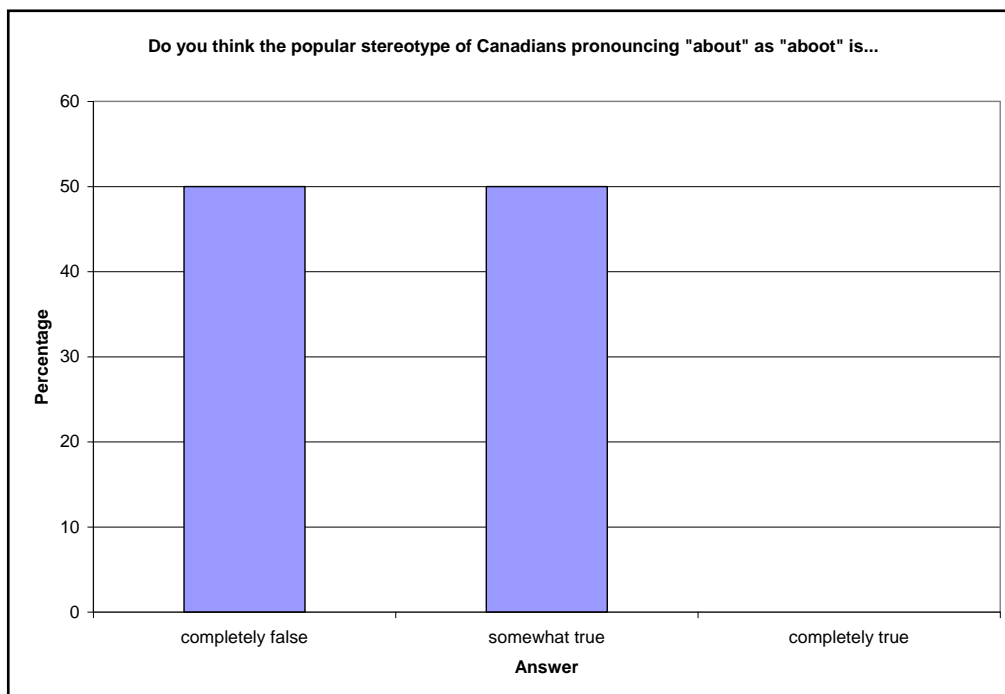

Figure 2: Survey Question 6

This pronunciation stereotype reflects Canadian Raising in the common word *about*.

From **Figure 2** we conclude that half of the survey respondents had at least some awareness of Canadian Raising (those who answered "somewhat true"), thus making them candidates for under-reporting this feature on their surveys. However, since the other half of the respondents appear to be unaware of this feature of their pronunciation, we cannot necessarily conclude that **Figure 1** is evidence of conscious under-reporting. People oblivious to Canadian Raising would have likely assumed Canadians and Americans pronounced most of the survey words the same way. However, this question still yields useful data because it shows a general lack of awareness of the differences in Canadian and American pronunciation among Canadians. If Canadians are generally unaware of these differences, it is reasonable to assume that they are not going to provide very accurate survey data on the subject.

3.2 City and Laboratory

Question 5 in the survey, "Do you fully pronounce the "t" in *city,* the same way that you would in *laboratory?"* was designed to measure "t-flapping", which is a marker of North American speech (Demirezen, 2006). This occurs when the sounds /t/ and /d/ are merged into a single "flap" of the tongue against the alveolar ridge (so that, for example, *bitty* and *biddy* sound the same). The results are shown in **Figure 3**.
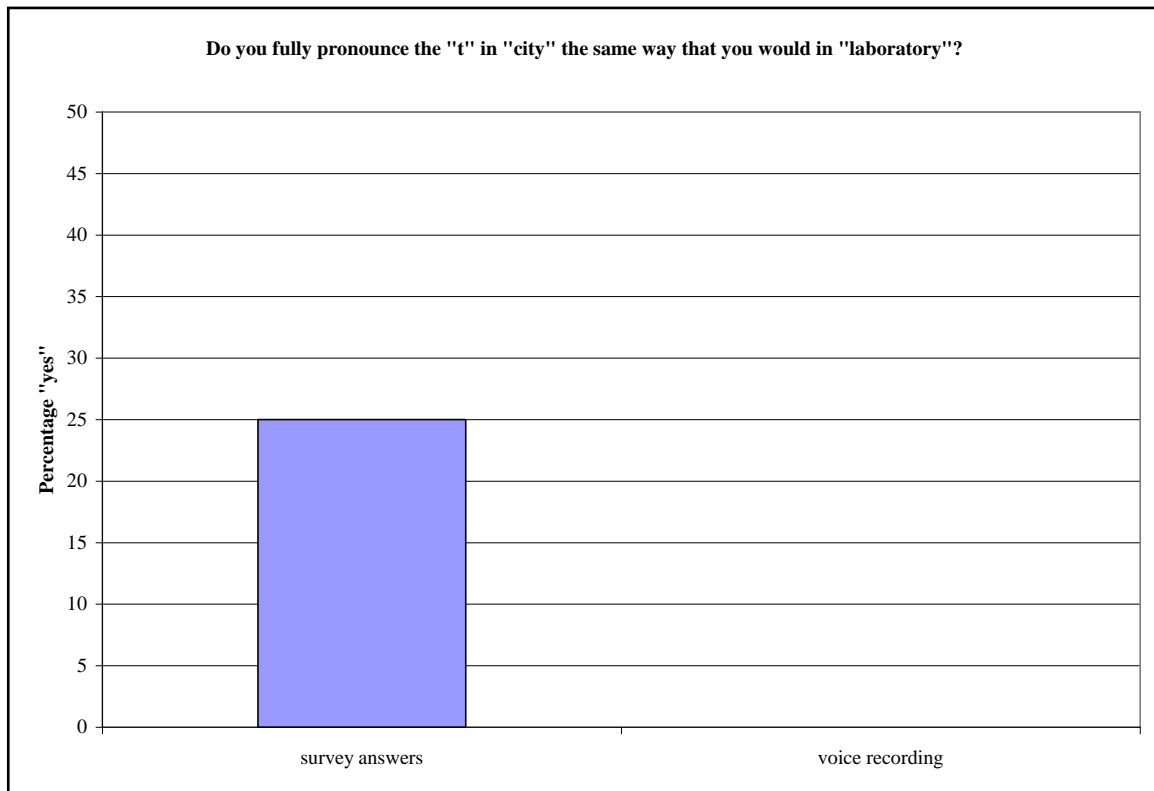

Figure 3: Survey Question 5

Figure 3 demonstrates the inconsistency between what people report and how people actually speak. Of those surveyed, 25% believed that they pronounced the "t" in the words *city* and *laboratory* the same way, while in the voice recordings none of the respondents actually pronounced these "t's" the same way. Specifically, the /t/ in *city* demonstrated t-flapping and the /t/ in *laboratory* did not. This again clearly demonstrates under-reporting by our respondents.

3.3 Similar Sounds

One section of our survey, Question 2, was devoted to investigating whether or not respondents recognized similarities or differences between sounds in pairs of words. We supplied respondents with several pairs of words and asked them if the words shared specific sounds. Results are shown in **Figure 4** below.

The *latter/ladder* pair once again represent an example of t-flapping, where the /t/ sound in "latter" and the /d/ sound in "ladder" are merged into one allophone. The *knife/knives* and *mouse/houses* pairs highlight Canadian Raising, which tends to occur only when the diphthong is followed by a voiceless consonant (as in *mouse, knife*) and not when it is followed by a voiced consonant (as in *houses, knives*) (Chambers, 1973). Finally, the *thaw/thought* pair examines the low-back vowel merger, which is another common marker of Canadian speech according to Labov, Ash and Boberg (2006).

This graph demonstrates very clearly how people often interpret words differently in concept than in reality. The most obvious example of this from the graph is the comparison between the words *latter* and *ladder*. Only 30% of the people surveyed thought that the two words would sound the same, yet every respondent pronounced the /t/ in *latter* with the flap, making it sound identical to *ladder*. On the other hand, 95% of respondents thought the middle diphthongs of *mouse* and *houses* sounded the same but only 60% actually pronounced them the same. Although respondents in this case *over*-reported similarity, they were effectively under-reporting a Canadian linguistic feature. To be more specific, the diphthong in *mouse* usually demonstrates some Canadian Raising while the diphthong in *houses* usually does not, due to the voiced consonant immediately following it.

Yet, respondents' perceptions were not always inaccurate. Respondents were generally aware of the similarities between the middle sounds in the *thaw/thought* pair and noticed the differences in the middle diphthongs of *knife* and *knives*. This really shows an inconsistency in respondents' speech perceptions, since they recognized the difference in the *knife/knives* diphthongs but not the *mouse/houses* diphthongs, which are both due to the same phenomenon (Canadian Raising). The implication is that there are some occasions where respondents can be counted on for accurate linguistic survey data, but these occasions might be difficult to identify.

Overall from this survey question, we have two significant examples of respondents' inaccuracy, one of under-reporting (the *latter/ladder* pair) and one of over-reporting (the *mouse/houses* pair).
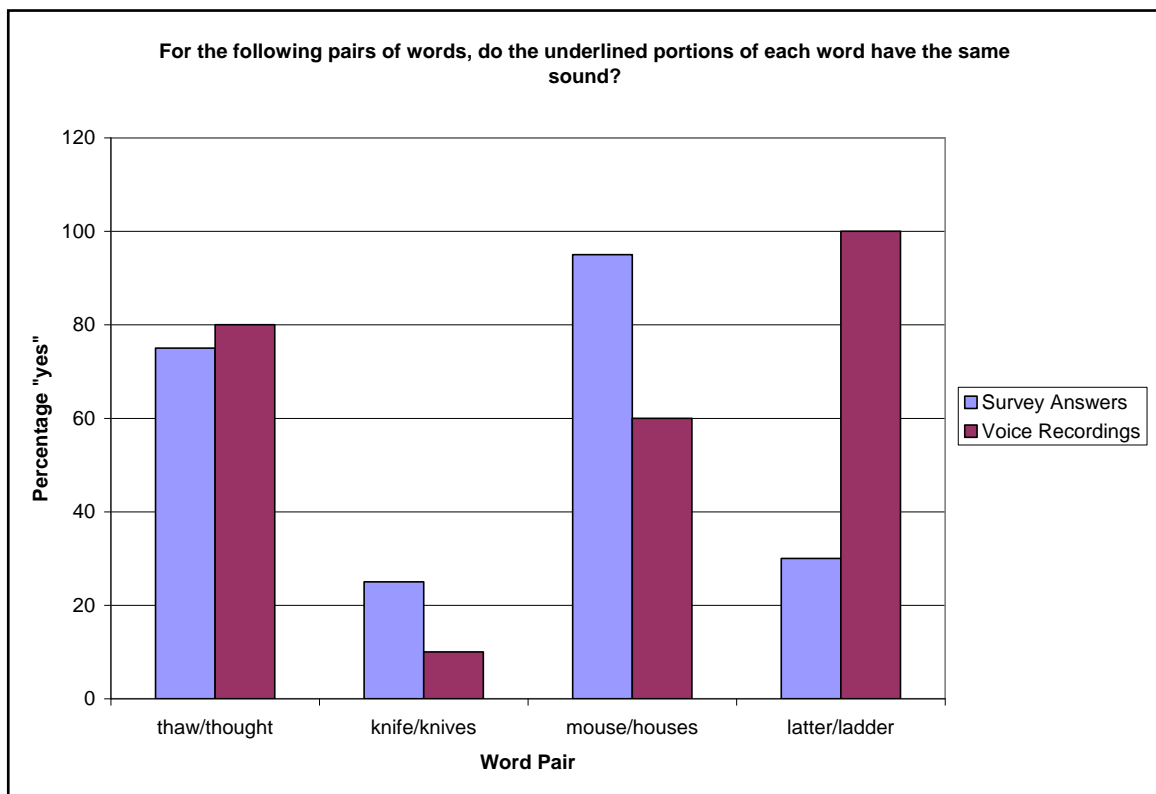
For the following pairs of words, do the underlined portions of each word have the same sound?

Figure 4: Survey Question 2

3.4 Cot/Caught, And/End

Question 3 in our survey asked respondents whether they pronounced the word pairs of *cot/caught* and *end/and* the same. The "Canadian shift" is a linguistic change occurring in Canadians' vowel systems and one feature of this shift is that the initial vowel of *end* and *and* sound the same (Clarke, Elms, & Youssef 1995). The *cot/caught* pair is another example of the low-back vowel merger examined (with *thaw* and *thought*) in the previous section. Results from this question are shown in **Figure 5**.

Figure 5 shows a stark contrast between the two word pairs. A full 100% of respondents indicated that they thought they pronounced *and* differently from *end* (indicated by the nonexistent blue bar for the *and/end* pair); from the voice recordings, however, we identified that 80% of the respondents did indeed pronounce these words the same. The remaining 20% of respondents did not clearly pronounce the word *and*, and we could not make an accurate judgment for them, so it is possible that these people were also under-reporting for the first word pair.
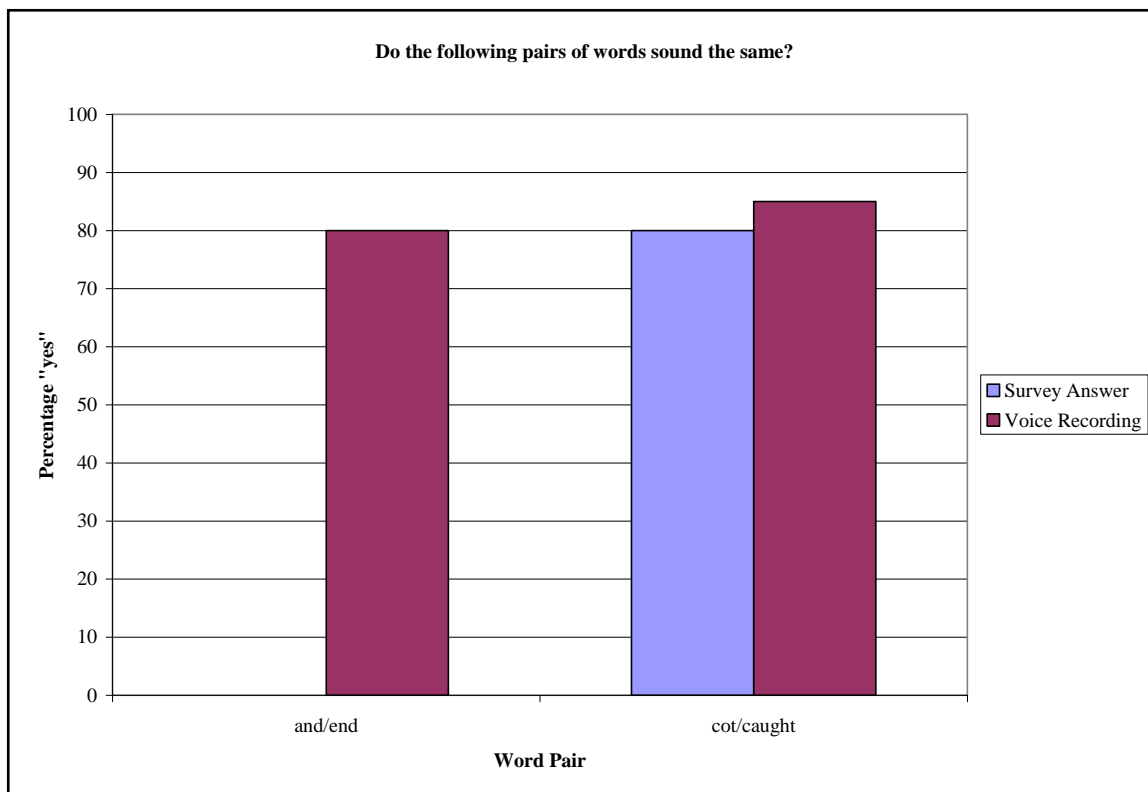
Do the following pairs of words sound the same?

Figure 5: Survey Question 3

It is interesting that the respondents *were* generally aware of the merge in the second word pair, with only one respondent speaking differently than he or she indicated in the survey. This finding is consistent with **Figure 4**, which showed most respondents aware of the low-back merger in the *thaw/thought* word pair.

The next survey question, Question 4, asked respondents if they thought that *any* English speakers would pronounce the word pairs from **Figure 5** differently. The results are shown in **Figure 6**.

The point of interest in **Figure 6** is that while almost every respondent recognized the *cot/caught* merger in their own speech, only 40% of realized that other English speakers might pronounce the two words differently. We can only assume that 60% of respondents don't recognize the *cot/caught* merger as Canadian but think of it as a general feature of English. Since it is a documented fact that many (though not all) Americans make a distinction between the words *cot* and *caught* (Labov, Ash, and Boberg, 2006), Question 4 provides further evidence of the general Canadian lack of awareness of Canada-America dialect differences.
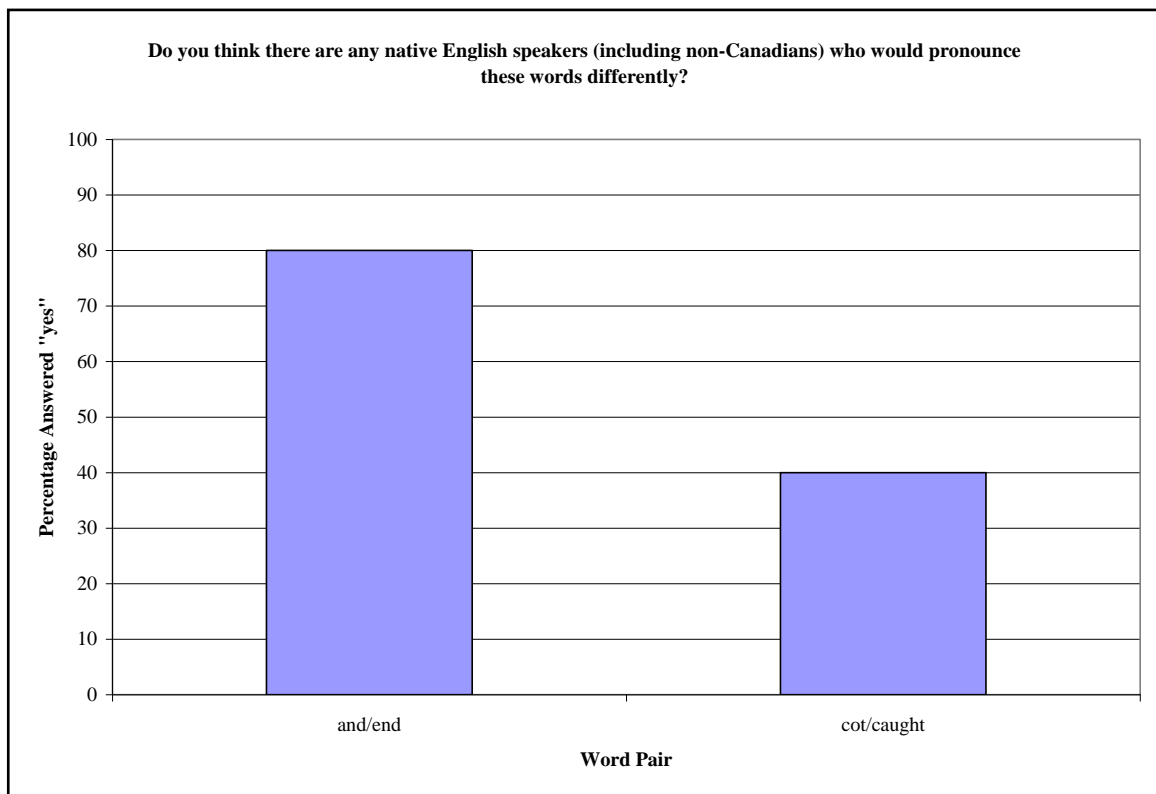
Do you think there are any native English speakers (including non-Canadians) who would pronounce these words differently?

Figure 6: Survey Question 4

3.5   *"Sounding Canadian"*

Question 8 in our survey asked respondents to indicate their reaction if someone were to tell them that they sounded Canadian. The results are shown in **Figure 7**.

The purpose of this question was to gain an understanding of the personal politics of the respondents in order to judge whether their survey answers truly reflected their perception of their speech or not. If many respondents had answered that they would be offended at being told they were Canadian, we might consider that their under-reporting of Canadianisms reflected their conscious desire to not sound Canadian. However, since almost all respondents indicated that they did not mind sounding Canadian, we can be confident that our results indicate under-reporting from lack of linguistic awareness, not personal politics.
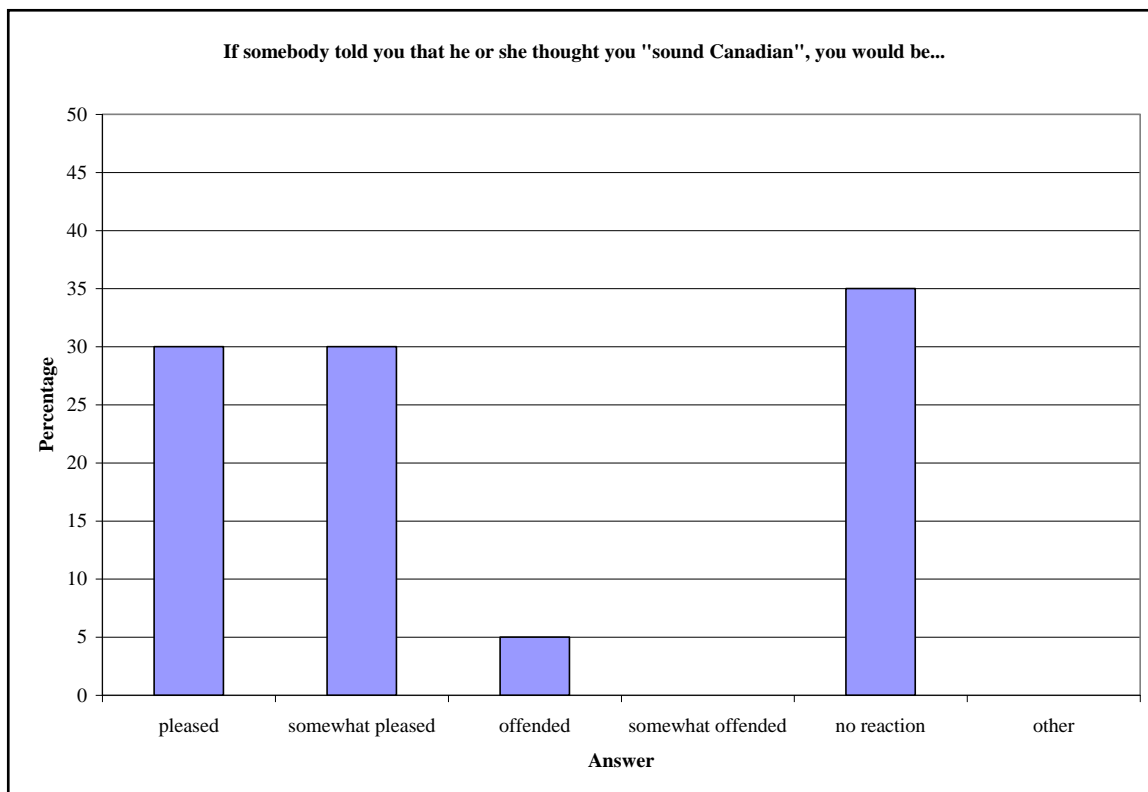
Figure 7: Survey Question 8

3.6 Canadian/American Accent

The final results discussed in this paper are the respondents' answers to Question 7, "Do you think Canadians and Americans speak English with the same accent?" Results are shown in **Figure 8**.

Figure 8 shows a vast majority (85%) of respondents indicating that they believe Canadians and Americans have different accents. This result starkly contrasts the results of previous questions where the majority of respondents were unable to identify Canadian/American differences such as Canadian Raising and the low-back merger. Question 7 provides useful information because it allows us to establish that a majority of respondents were clearly aware that Canadians and Americans speak English differently, yet failed to identify markers of their own speech that formed this distinction.
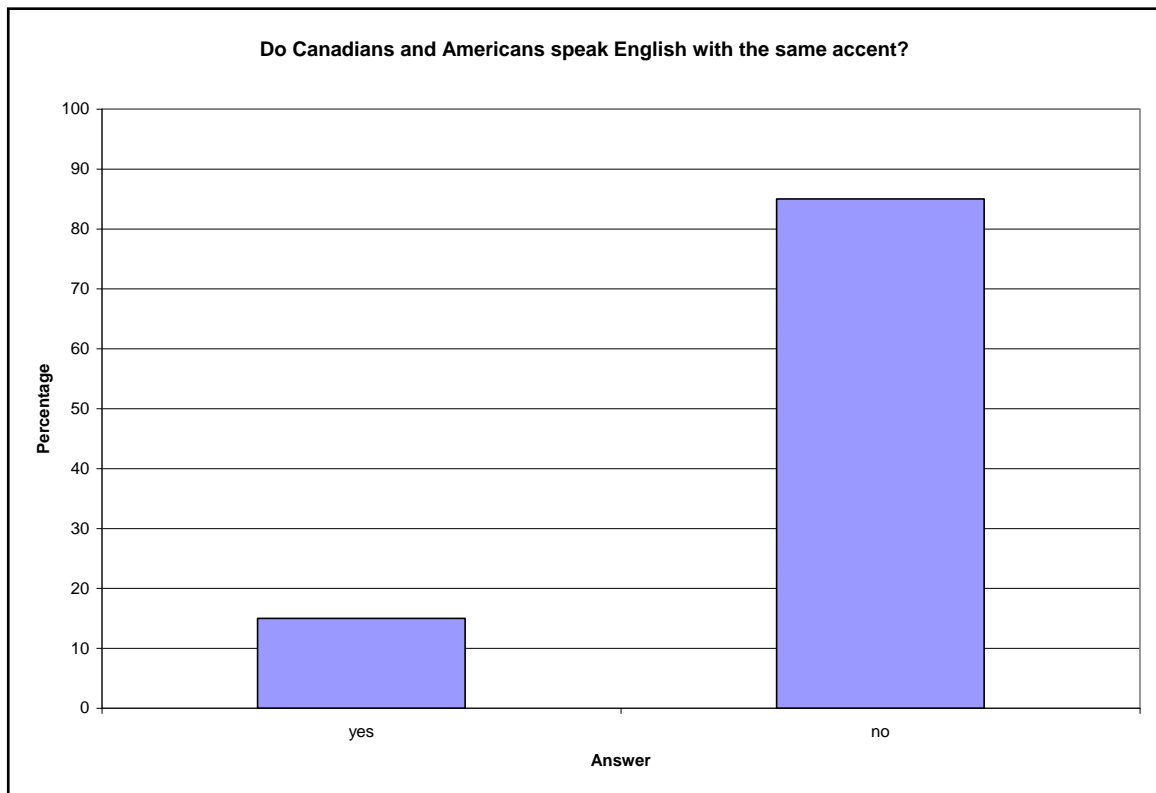
Do Canadians and Americans speak English with the same accent?

Figure 8: Survey Question 7

While in previous sections we have conjectured that Canadians were largely unaware of certain Canadian and American speech differences, this question proves that Canadians at the very least are aware that there are differences, which provides us with an increased confidence in the conclusions about under-reporting that we will make in the next section.

4.   Conclusions

In this paper, we have used survey and voice data to establish that respondents in linguistic surveys are likely to under-report some aspects of their speech due to a lack of awareness about their speech habits. We have several robust examples of respondents' giving survey answers that are almost unanimously at odds with the trends seen in their voice samples, most notably with the *and/end* and *ladder/latter* word pairs. We have also established a general awareness among respondents that there are differences between American and Canadian English, although we could not

show that respondents in general were aware of specific markers of Canadian speech. If a researcher were to conduct a survey-based study and had asked questions similar to ours, the data he or she received would likely not be a true representation of the speech habits of the respondents due to the under-reporting we have discovered through our voice recordings. Although we uncovered some examples of respondents' accurately reflecting their speech patterns, these were not particularly common or predictable results. We can conclude that surveys used alone are a flawed tool on which to base Canadian linguistic research due to the likelihood of respondents' under-reporting and the general lack of awareness about specific linguistic features that mark Canadian English.

5. Further Work

Owing to obvious time and resource constraints, this study was carried out mainly on and around the Queen's University campus. It would be a good idea to extend the study to incorporate respondents from all across Canada to determine if these under-reporting trends apply to all Canadians or just Ontario university students. It would also be interesting to study other varieties of English to determine if the under-reporting of Canadianisms evident in this study is paralleled by under-reporting of markers in other English dialect regions such as Australia and England.

References

Burnett, W. (2006). Linguistic resistance on the Maine-New Brunswick border. *Canadian Journal of Linguistics*, 51(2/3), 161–175.

Chambers, J. K. (2004). About dialect topography. Retrieved November 21, 2008 from http://dialect.topography.chass.utoronto.ca /dt_about.php

Chambers, J. K. (1973). Canadian Raising. *Canadian Journal of Linguistics*, 18(2), 113–135.

Clarke, S., Elms, F., & Youssef, A. (1995). The third dialect of English: Some Canadian evidence. *Language Variation and Change*, 7, 209–228.

Demirezen, M. (2006). Flapping in North American pronunciation: case 1: The change of /t/ and /d/ into [D] in pronunciation. *Journal of Language and Linguistic Studies*, 2(1), 87–100.

Gibson, D. (1977). Eight types of 'eh'. *Sociolinguistics Newsletter*, 8, 30–31.

Labov, W., Ash, S., & Boberg, C. (2006). *The atlas of North American English*. Berlin: Mouton de Gruyter.