GEOLINGUISTIC PATTERNS IN A VAST SPEECH COMMUNITY

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The Dialect Topography of Canada has reached a kind of plateau. After ten years of data-gathering, from 1992 to 2002, we have assembled large databases on language variants in regions across Canada. The databases are accessible at dialect. topography.chass.utoronto.ca. The website, constructed by Dr. Tony Pi, is free of charge and user-friendly, with tutorials and analytic aids.

We are not presently engaged in Dialect Topography surveys in other regions. In years to come, there will undoubtedly be more regional surveys and new surveys of the original regions, but the time gap between the existing ones and the ones that will follow entails that they will relate to one another not as additional contemporaneous surveys but as real-time comparisons.

In this article, I illustrate the breadth of coverage by investigating three geolinguistic patterns that have emerged from our research. I begin with a brief introduction to the methods and goals of Dialect Topography. In so doing, I cannot avoid noting a salubrious coincidence. The first public presentation on Dialect Topography took place at Université de Moncton, at a meeting of the Atlantic Provinces Linguistic Association in 1992. The presentation on which this article is based, which represents a kind of stock-taking on what we have accomplished with Dialect Topography at this juncture, also took place at Université de Moncton. That first presentation, fourteen years ago, resulted in an article that provided an introduction to Dialect Topography (Chambers 1994). That article is fuller and more discursive than space allows here, and I am pleased to refer readers to it to fill in any gaps I leave here. The "distance" between that first presentation and this one symbolically represents a huge investment of time and effort by a team of dedicated scholars.[1] Our bond comes not only from the many hours we spent working together but also in the shared belief that we have left behind a resource that has almost limitless potential.

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[1] The regional directors are Wendy Burnett (New Brunswick), Troy Heisler (Quebec City), Pamela Grant (the Eastern Townships), Charles Boberg (Montreal), André Lapierre (the Ottawa Valley), Jack Chambers (the Golden Horseshoe I), Jacek Panster (the Golden Horseshoe II), and Tony Pi (Vancouver). The principal research assistants were Gordon Easson, Jacek Panster, Mary MacKeracher, Heather Bowne and Tony Pi.

1. DIALECT TOPOGRAPHY COVERAGE

As its name implies, Dialect Topography is designed for mapping surface features of linguistic variants. Data-gathering is carried out by means of a questionnaire (Chambers 1998a). The questionnaire was exclusively hard copy until the last stages when Tony Pi devised an electronic, on-line version as well. The method is sociolinguistic dialectology. Eleven questions ask for personal data: age, sex, eduction, occupation, place raised from 8 to 18 years of age, place born, place of residence, mother's birthplace, mother's occupation, father's birthplace, father's occupation. The survey is directed at native English-speaking Canadians, but the multilingual composition of the country yields a question about the frequency of English use with family, friends, work-mates and relatives. Seventy-six questions ask for linguistic information in the following categories: thirty pronunciation, twenty-five general vocabulary, six special vocabulary, seven morphology, five syntax and four usage. Because three of the questions include parts, there are actually eighty-one linguistic items to be entered for each respondent.

Regional coverage reaches both the east coast and the west coast as well as points between. It is hardly a blanket, as the map in Figure 1 makes abundantly clear. The regions delineated are (from east to west) New Brunswick, the Eastern Townships, Quebec City, Montreal, the Ottawa Valley, the Golden Horseshoe and Greater Vancouver. The vast central regions of the country are woefully neglected as we come to this first plateau. However, because the population is scattered over the huge land mass, blanket coverage in Canada is hardly plausible. The regions we have covered include the four main population centres, and as a result the coverage is maximally representative. The inset table in Figure 1 lists population figures from the 2001 Census. The Golden Horseshoe, which includes Toronto, Hamilton and Niagara, itself houses almost one-fifth of the population of the country. Greater Montreal houses more than a ninth. Altogether the regions we have surveyed represent 46 percent of the population. Regional comparisons can be made with reasonable confidence. They are enhanced by the fact that we have also surveyed adjoining regions of the United States where they abut on our Canadian regions. New Brunswick adjoins Maine at its southwestern border, the Eastern Townships adjoin Vermont, the Golden Horseshoe adjoins upstate New York, and Vancouver adjoins western Washington state. The American regions provide contrastive evidence.

2. PATTERNS OF REGIONAL VARIATION

The Dialect Topography databases have provided numerous insights into Canadian sociolinguistics. Several articles have sought to highlight distinctive aspects of particular regions by studying multiple variables, notably in the Golden Horseshoe (Chambers 1998b), Quebec City (Chambers and Heisler 1999), Montreal (Boberg 2004) and New Brunswick (Burnett 2007).

Here I will look at specific variables as they pattern in several regions in or-
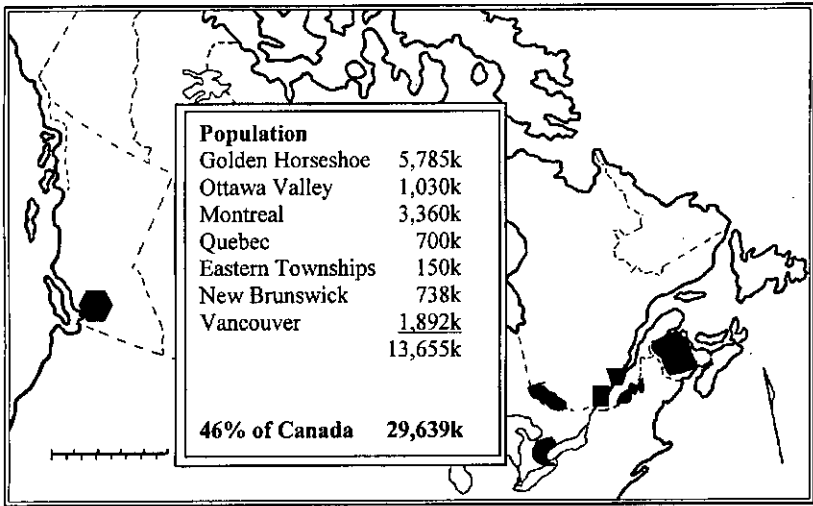
FIGURE 1

Map of Canadian regions in the Dialect Topography database with population figures from
2001 Census (inset)

der to discern trends across Canada.[2] The first pattern, linear change, exemplified
by the variable *sneaked/snuck*, shows the same movement in all regions. The sec-
ond, regional diversity, exemplified by the *merry/Mary/marry* merger, differs in
certain regions. The third pattern, regional discontinuity, follows from the regional
diversity of the vowel variants before /r/, and presents geolinguistic islands in the
regional pattern.

3. LINEAR CHANGE: *sneaked/snuck*

One of the variables undergoing change is the replacement of *sneaked*, the past
tense of *sneak*, by the strong form *snuck*. In the Golden Horseshoe, where this vari-
able was first studied, it was discovered that the change formed a classic S-curve,
with *snuck* showing little currency among 70- and 80-year-olds, gaining accep-
tance increasingly in the use of people in their 60s, 50s and 40s, and reaching
near-categoricity for people under 30 (Chambers 1998b:22–25). Serendipitously,
the apparent-time span of the Dialect Topography project happened to capture the
change almost from inception to completion.

Studies of *snuck* in the other Dialect Topography regions showed very similar
patterns all across Canada, as we shall see. The rise of *snuck* from dialect obscurity

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[2] At the time of Methods XII, the Vancouver database was being coded and debugged. It
is not included in the analyses I present here. By the time these proceedings are published,
the Vancouver database will be fully operational.

to standard usage cannot be explained by any straightforward attribute. The earliest written attestation anywhere is in a short story published in New Orleans in 1887, where a backwoods character says, "He grubbed ten dollars from de bums an' den snuck home." How it got to Canada from New Orleans is a puzzle. A usage survey in Ontario in 1954 (Avis 1975) did not include *sneaked/snuck* among the variables at all, suggesting that it was so infrequent at mid-century as to escape notice. Surveys in 1970 (Scargill and Warkentyne 1972) and 1979 (DeWolf 1990:17) did include it, and what they reveal is initial resistance among older speakers but growing acceptance by their children. Table 1 shows these real-time comparisons. The 1992 column shows the Dialect Topography figures for 40-year-olds and teenagers in the Golden Horseshoe, and by then we see broad acceptance in older as well as younger respondents.

TABLE 1

Percentage of *snuck* by older and younger Canadians in three surveys

	1970	1979	1992
older	30	25	81
younger	64	88	98

Linguistic changes often defy causal explanations, try as we might, but this one seems completely devoid of rationalization. In the first place, replacement of the weak form (*sneaked*) by a strong form (*snuck*) reverses the main trend in English conjugation regularization that has been going on for more than a thousand years. Cognitively, *snuck* replaces a rule-governed, productive inflectional form with an anomalous form that must be memorized (Pinker and Prince 1999). Furthermore, there is no model for this change in terms of analogy: verbs that rhyme with *sneak* are all weak: *leak, peek, tweak,* and the rest have past *leaked, peeked, tweaked* (not *luck, puck, twuck*). Strong verbs that have /ʌ/ in the past all have /ɪ/ in the stem: *cling, dig, fling, sling, slink, spin, stick, sting, stink, swing, win* and *wring.* Nor was prestige on its side, given its nondescript origins in American Deep South dialect and the absence of genealogy in both philological records and Old-World dialectology.

Yet it must be admitted that *snuck* is one of the most successful innovations in the annals of twentieth-century linguistic change. The S-curve pattern that we found in the Golden Horseshoe essentially repeats itself in all the Dialect Topography regions, as Figure 2 shows. Notwithstanding the relative autonomy of the regions, each with their own central places and self-contained communication networks, the replacement of *sneaked* by *snuck* follows much the same trajectory in a similar time frame in all of them. The regional lines in Figure 2 are somewhat obscured by superimposing the aggregate line over them. Nevertheless, individual paths are implicit when they are not evident. Most noticeable is Quebec City, which only adopts the change with the 50-year-olds, some twenty years after the

other regions, including Montreal and the Eastern Townships, the closest regions to it both geographically and culturally. When the change takes hold in Quebec City, however, it accelerates rapidly, being adopted by about 25 percent more speakers in two successive decades. Quebec City teenagers (in the rightmost column) have obviously caught up to teenagers in all other parts of the country.

The aggregate line superimposed on Figure 2 simply links the average score for all regions at each age group. Graphically, it emphasizes the coherence of the change and its linearity. Theoretically, it makes a useful case study of the Aggregate Principle: when a trend is real, every additional observation gives it greater substance (Chambers 2002:362).[3]
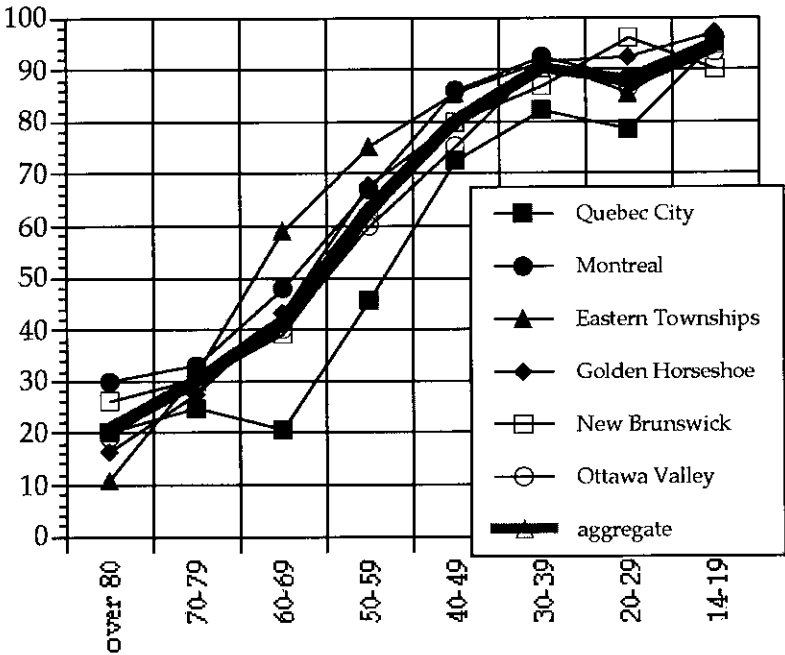

FIGURE 2

Percentage of *snuck* in the speech of different age groups in six Canadian regions, with aggregate score superimposed to illustrate the linearity of change

Impossible though it is to determine the cause of this change it seems possible to account for the agreement in all the regions. First, there is the legendary homogeneity of Canadian English, a persistent theme in many studies involving the urban middle-class variety. Second, the change to *snuck* is apparently a standardizing

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[3]The converse also holds: when a trend is illusory, every additional observation makes it more chaotic.

change. If it appeared to be merely regional in its earliest stages, as illustrated by the resistance to it in Quebec City until the 1930s (that is, among people 60 years and over in 1992), it soon established critical mass elsewhere and the laggards joined in. Finally, not only is *snuck* now the standard term in Canada, it is the incipient standard in most English-speaking countries. Creswell (1994:144) says, "In the slightly more than 100 years since its first appearance, *snuck* has become a standard variant for *sneaked*, both as preterit and as past participle." He concludes, "*Snuck*, whatever its status in the past, is now well established, fully standard, and in widespread general use in both the U.S. and Canada, and in growing use in Britain and Australia" (1994:147). Its international spread suggests that it is one of a handful of global changes that will become standard in most (or all) national Englishes.

4. REGIONAL DIVERSITY: *merry/Mary/marry*

In many parts of Canada and the United States, low and mid front vowels are neutralized before /r/ and merged with mid lax /ɛ/. The merger makes *Mary* and *marry* homophones with *merry*. It affects dozens of words, including other triplets such as *Barry* and *bury* homophonous with *berry*, *their* and *they're* with *there*, *air* and *heir* with *err(or)*, *hair* and *hare* with *Herr*, and numerous pairs like *vary* and *very*, *bare* and *bear*, *stair* and *stare*, *pair* and *pear*, and so on. The merger is not well studied either by dialectologists or phonologists, and so there is apparently no real-time comparative evidence or descriptions of how it came into being. It seems likely that the merger began with the laxing of /ej/ before /r/ as in the prototypes *their* and *they're* (both based on *they* with tense /ej/) merging with *there*. For many Canadians, words like *prayer* and *layer* (based on *pray* and *lay* with tense /ej/) neutralize as monosyllabic [pɹɛɹ] and [lɛɹ]. The neutralization then presumably spread to /æ/ before /r/, to take in words like *Barry*, *carry* and *Mary*. Words like *barrel*, *(wheel)barrow* and *guarantee*, pronounced with the open back vowel /ɑ/ in old-fashioned Canadian English (and still sometimes heard with that vowel in some regions) also neutralized to /ɛ/, presumably by first fronting to /æ/. In regions that have not undergone the merger, these words are usually pronounced with /æ/ but not always, as we shall see in the next section.

Though the merger has largely gone unstudied, our Dialect Topography databases show that it is still discernible in parts of Canada as a change. This can be seen in Figure 3, though it takes fairly careful scrutiny to see it. Figure 3 plots the occurrence of the merger in terms of the percentage of /ɛ/ in *guarantee*. The graphic representation obviously lacks the coherence of Figure 2, a characteristic that is symptomatic of regional diversity. Looking at the teenagers in the right column it is clear that the merger is nearly completed in four of the regions—New Brunswick, the Golden Horseshoe, the Ottawa Valley and the Eastern Townships. The trajectory leading to that unanimity is not linear, as it was in the case of *snuck*. Instead, there are distinctive patterns. New Brunswick merged the vowels years ago and shows high response (above 60 percent) throughout the apparent-time span of the Dialect
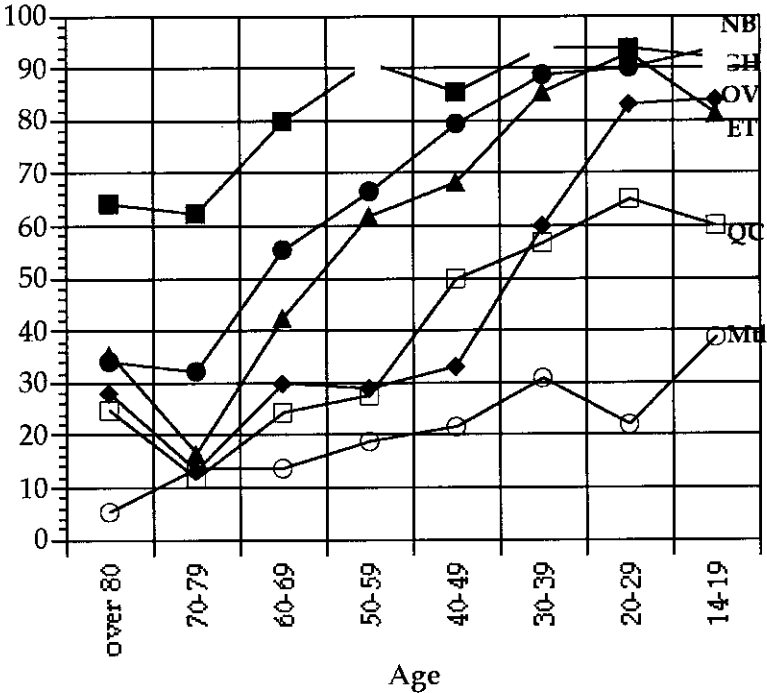
FIGURE 3

Percentage of vowel merger before /r/ in six regions according to age

Topography records, with stability (around 90 percent) for the last 50 years. The Golden Horseshoe and the Eastern Townships show a fairly regular progression from minority responses for the oldest respondents to majority responses starting about 50 years ago, the same time that New Brunswick completed the change. The Ottawa Valley started later and accelerated rapidly some forty years ago, presumably in response to the perceptible new standard in the Golden Horseshoe and other parts of Ontario.

The significant outliers are Quebec City and especially Montreal, where the merger has not made serious incursions and does not appear to be progressing like a normal change, though there are obviously more younger people with the merger than older. Montreal is notably different, and actually more different than Figure 3 can reveal, as we shall see when we look at it more closely in the next section.

5. REGIONAL DISCONTINUITY: VOWEL VARIANTS BEFORE /r/

Geographically, New Brunswick and the Golden Horseshoe, the two regions that are most advanced in the merger, are on the eastern and western periphery of the six Dialect Topography regions under consideration. The regions most different from

them, Montreal and Quebec City, are in the middle. The geolinguistic pattern is thus discontinuous. The pattern runs contrary to the abiding metaphor for linguistic diffusion of waves spreading innovations across a landscape. It is also contrary to the gravity model whereby innovations leap from one large population centre to another and later fill in the gaps by spreading to smaller towns and villages. Here we have a population centre that maintains its own integrity and forms a pocket of resistance to the norms surrounding it.

The distinctiveness of Montreal is more clearly visible in Figure 4. There are, as noted above, three common vowel variants for the stressed syllable in words like *guarantee*: back /ɑ/, canonical /æ/, and merged /ɛ/. In Figure 4, these three reflexes are distinguished in the responses for each region by the shading on the bars, with the dark grey nearest the abscissa representing /ɑ/, light grey in the middle representing /æ/, and the dark grey at the top representing /ɛ/. Instead of the whole sample, these calculations are made only for respondents under 40 years of age, that is, from 14 to 39. Because the merger is progressing in some regions, restricting the sample to the relatively settled use since mid-twentieth-century (as can be seen in Figure 4), gives a proportional snapshot of the current situation.

Restricting the sample in this way will, if anything, narrow the differentness of Montreal from the other regions because its older respondents are even more dissimilar from their age-mates, but even so it stands out from the rest. Figure 4 is actually a cartogram, a stylized map, with the Dialect Topography regions arranged on the abscissa from west to east. The graphic pattern is easily read. It shows the low vowel /ɑ/ to be insignificant in all regions; older speakers have it more frequently than younger ones, indicating that it is recessive; it had fair representation in Ottawa Valley before the merger took hold; the impression that it is old-fashioned and rural would seem to be corroborated by the fact that the Ottawa Valley includes several rural districts. Equally obvious in Figure 4 is the similar pattern of the peripheral regions, the Golden Horseshoe and New Brunswick, where the merger is virtually complete. Montreal's distinctiveness is highlighted by looking at the configuration formed by the light-grey portion of the bars, the proportion of /æ/. Relative prominence of the light-grey bar for Quebec City shows it as a kind of buffer region, and perhaps to a lesser extent the Eastern Townships is as well. Those three regions in the province of Quebec may participate in a sphere of influence all their own.

6. USES OF DIALECT TOPOGRAPHY

The distinctiveness of Montreal emerges clearly in the study of this variable. As a macro-sociolinguistic method, Dialect Topography is intended to reveal surface differences in its own right and direct attention to areas that will reward further study. Boberg (2004) has now corroborated Montreal's vowel variants before /r/. In a later study, Boberg (2005:36) concluded: "Montreal appears to be the most lexically distinct region in Canada." We have known for some time that the differences go deeper. Hung, Davison and Chambers (1993) showed its distinctiveness with re-
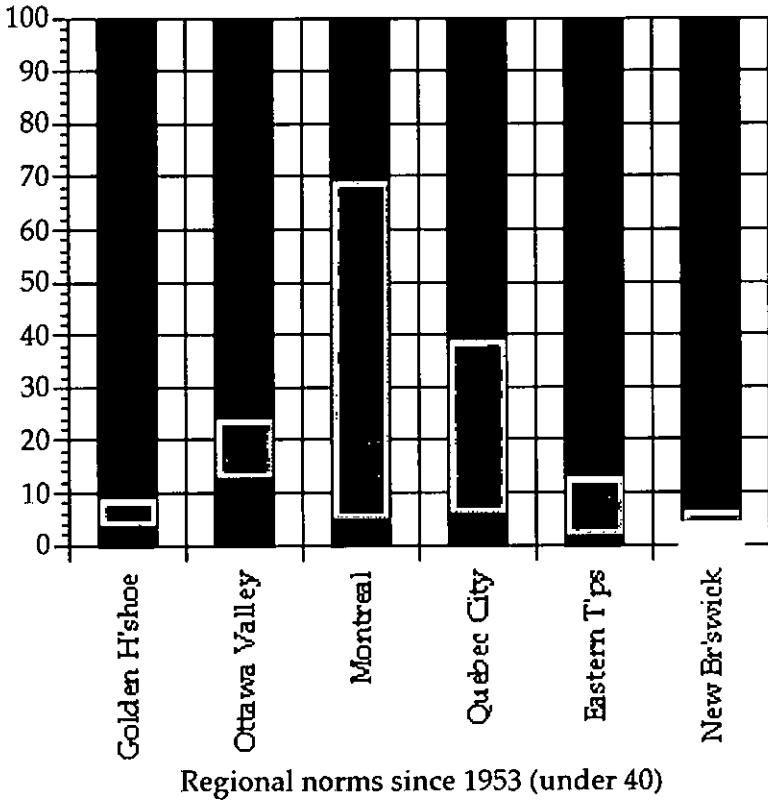
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Regional norms since 1953 (under 40)

FIGURE 4

Proportion of vowel variants before /r/ in the regions for respondents under 40
Notes: dark grey at bottom = /ɑ/, light grey in middle = /æ/, grey at top = /ɛ/

spect to (aw)-Fronting, a phonological change progressing in Toronto, Vancouver and Victoria but evincing no coherent reflexes in Montreal.

Other geolinguistic patterns lead to different findings. Linear change, as exemplified by the rise of *snuck*, showed Montreal falling into line with all the other regions. In these ways, Dialect Topography databases are shedding light on diversity and homogeneity in Canadian English, and also providing empirical weight with case studies of stability, change, diffusion and other principles of sociolinguistic dialectology. They have proven productive in numerous studies, but their resources have barely been tapped in the work done so far.

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