

Region and Language Variation

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ABSTRACT: Traditional dialectology took region as its primary and often its only independent variable. Because of numerous social changes, region is no longer the primary determinant of language variation, and contemporary (sociolinguistic) dialectology has expanded the number of independent variables. In *Dialect Topography*, we survey a representative population, and that population inevitably includes some subjects born outside the survey region. We want to know how these non-natives affect language use in the community. Admitting them thus requires us to implement some mechanism for identifying them in order to compare their language use to the natives. The mechanism is called the Regionality Index (RI). Subjects are ranked on a scale from 1 to 7, with the best representatives of the region (indigenes) receiving a score of 1, the poorest (interlopers) a score of 7, and subjects of intermediate degrees of representativeness in between. I look at three case studies in which RI is significant: *bureau* in Quebec City, *running shoes* in the Golden Horseshoe, and *soft drink* in Quebec City. These results introduce a new dimension to the study of language variation as a regional phenomenon and provide a framework for the integration of regionality as one independent variable among many in dialect studies. The RI provides, perhaps for the first time, an empirical basis for inferring the sociolinguistic effects of mobility.

1. Dialect and Landscape

At the time of the inception of dialectology as a systematic study, in the second half of the nineteenth century, scholars considered dialect differences to be mainly a function of region. So in 1846, Anto Warelius (1821-1904), the unsung pioneer of Western dialectology, set out on foot from Hamina in southeastern Finland and walked in a northwesterly line from village to village, collecting dialect data over almost 400 km (Rapola 1969).¹ Warelius seems not to have bothered noting many details about the villagers who answered his questions. He was not particularly interested, for his research purposes, in whether they were male or female, young or old, farmers or clerks, or any of the other social factors that might ostensibly have colored their use of the language. He was interested mainly in where they lived—their town or hamlet or parish—and that he recorded faithfully.

Though Warelius's work was (and still is) so obscure outside his own country that it could not be said that the dialectologists who came after him followed his lead, they adhered to the same practices. For over a century, dialectologists were primarily interested in where their respondents lived, and they dispatched their fieldworkers accordingly, from Edmond Edmont cycling through the French countryside collecting data for the *Atlas linguistique de France* in 1896-1900 to Raven I. McDavid motoring

around the eastern seaboard of the United States gathering field records for the Linguistic Atlas of the Middle and Southern Atlantic States from 1945 to 1949. For those years, dialectology was essentially dialect geography, region was the primary and often the only independent variable, and its medium was the Sprachatlas, a folio of maps.

Warelius and the other founders of dialectology were heirs to a powerful conviction about the relation of dialect variety to the local landscape. Eighteenth century philosophers believed that language was a natural, organic entity, like a plant, and its diversity was thought to have the same source as the diversity of vegetation. Just as vegetable life took on distinctly different appearances according to the climate and soil that nourished it, so languages took on distinctly different characteristics in different climates. In 1754, in *Concerning Diligence in Several Learned Tongues*, Herder set down what was probably the most influential statement about the deterministic relationship (quoted more fully in Brown 1967: 74; discussed further in Chambers 1995a: 227-28):

When the children of dust undertook that structure that menaced the clouds—the Tower of Babel—, then the pleasure-cup of confusion was poured out over them, their families and dialects were transplanted in divers regions of the earth; and there came into being a thousand languages according to the climate and the customs of a thousand nations.... Thus transformed itself this plant—human speech—according to the soil that nourished it and the celestial air that drenched it: it became a Proteus among the nations.

In this intellectual tradition, landscape and language were inextricable. The idea grew out of the commonplace observation that people whose lives were circumscribed by their home territories used speech features identifiable as indigenous to their region. That is probably still true, but the numbers of such people whose lives are so circumscribed, a majority in Herder's day, have dwindled to a miniscule, statistically insignificant minority today.

Some years after systematic dialectology was well established, the rise of synchronic linguistics deflected attention from the historical bent of the Neogrammarians and their heirs, but region retained its primacy as a determinant of dialect variation. Saussure, the most perspicacious linguist of the day, enshrined it as an axiom in the discipline when he declared: “geographical separation is still the most general force in linguistic diversity” ([1916] 1966: 193).

2. Social Transformation of Enclaves

In the developed nations, region no longer maintains its primacy. Wholesale changes in mobility, urbanization, literacy, embourgeoisement, and other social factors have led to a drastic leveling of regional accents and dialects. A generation ago, Labov could say, “My own studies of on-going linguistic changes indicate that dialect diversification is continuing...in spite of close contact among the social groups involved” (1972: 324). That claim, admittedly impressionistic, went unchallenged. Nowadays it would not. The demise of regional dialect varieties has become an international issue in sociolinguistics. In 1995, Wolfram convened a special session of the American Dialect Society on “dialect

obsolescence” that meticulously documented situations involving “dialect death” (Schilling-Estes 1997), “enclave dialect contraction” (Picone 1997), and dialect “demise” (Bills 1997), focusing on what Wolfram called “post-insular language situations—that is, situations in which historically isolated language varieties emerge from this isolation through extended contact with speakers from other groups or because of various kinds of demographic changes such as population loss” (Wolfram 1997: 3). Those demographic changes include mobility and the other factors named above.

Dialect death is by no means restricted to regions where English looms as the standardizing medium. Priestly (1994) provides a meticulous study of the decline of the Selani dialect of Carinthian Slovene, an “instantly identifiable” variety spoken until recently by the 1,000 inhabitants of the alpine village of Sele in Austria near the Slovene (former Yugoslav) border. Sele was a Slovenian enclave surrounded by Austrian Germans until mobility of all kinds altered the local conditions. Before 1927 Sele was connected to the outside world by horse-trails, and its isolation was only marginally altered when a road built in 1927 proved too steep for most vehicles. For twenty years afterwards, public bus routes could do no better than to provide a stop within a one-hour walk of the town (1994: 201-02). Then, in the 1970s, the roadways improved and vehicles became more powerful, changing the life of the villagers inexorably. Now 72 per cent of the villagers commute to work in nearby towns (1994: 210). Geographic mobility, as always, stimulates not only occupational mobility but also social mobility. For centuries, marriages were local alliances except for about 2 per cent of the population who ventured further afield, but by 1985 more than half the married couples in the village had one or both partners born outside (1994: 204). Secondary education takes place in a composite school in a bigger town outside Sele with optional Slovene-language instruction, an option chosen by fewer students “in recent decades” (1994: 208).

These changes have affected language in Sele dramatically. Located near the crux of central Europe, Sele sustains a complicated multilingual-multidialectal situation, with four language varieties in daily use: local Slovene including the most local Selani variety, standard Slovene as spoken in Ljubljana, local Austrian German, called Kärntnerisch, and standard Austrian German (1994: 200). One of the means by which Priestly measured changes was in terms of language use in the workplace. Responses by Selani people are summarized in Table 1. Compared to the 1920s, when Sele was isolated and Selani Slovene was the main language of the workplace, the 1990 period of high mobility has virtually eliminated Selani Slovene in favor of German. Nowadays, when Selanis speak Slovene at work it is usually standard Slovene.

	Selani Slovene	standard Slovene	Kärntnerisch German	standard Austrian
1920s	always	very rarely	very rarely	never
1990s	rarely	sometimes	very often	very often

Table 1—Language use in the workplace in Sele, Austria (based on Tables 3 and 4 in Priestly 1994: 206, 210, slightly simplified).

Priestly is quick to point out that looking at workplace language presents the gloomiest picture for language and dialect maintenance. The residents of Sele have traditionally been linguistic nationalists, bent on preserving Slovenian in the German setting. “Other parts of Slovene Carinthia have succumbed to Germanization to greater or lesser degrees,” he says (1994: 215). “Sele and a few other villages have remained bastions of minority language maintenance.” But he concludes on a note of caution: “we will see how this fierce bastion, and its fellows, can face up to the equally fierce challenges presented by the effects of modernisation and of occupational, educational and other kinds of mobility.”

3. Decline of Region as a Linguistic Correlate

The challenges faced by the Selani Slovenes may be more extreme than in many other places, but they are the same in kind. In all parts of the world, enclave dialects are threatened with extinction, and where they survive they do so with markedly fewer speakers from one generation to the next.

Because of the changing conditions, region is no longer the main determinant of dialect differences. To paraphrase Saussure, social separation, not geographic separation, is the most general force in linguistic diversity. The rise of sociolinguistics in the last 35 years can be viewed as a natural response by dialectologists to the new social conditions, whereby scholars studying linguistic variation recognized the need to increase the number and kind of independent variables as correlates of linguistic variation. Instead of seeking linguistic variation in insular and isolated regions, now precious few and far between, sociolinguists look for correlates with class, sex, age, ethnicity, and other independent variables in urban settings.

Ellen Johnson (1996: 31) empirically demonstrated the diminution of region as a correlate of linguistic variation in a real-time comparison. In 1990, she replicated the survey for the Linguistic Atlas of the Middle and Southern Atlantic States (LAMSAS), originally made in the 1930s by Guy Lowman. She selected 39 subjects from 30 counties in Georgia, South Carolina and North Carolina demographically matched to 39 of Lowman’s subjects (1996: 13), noting that “this type of purposive, rather than random, sampling gives first preference to the comparability between the two sets of data” (1996: 15-17). Because of social changes since the 1930s, her subjects are slightly better educated and slightly less rural than Lowman’s (1996: 18), but they are otherwise perfectly matched in sex, race, age (at time of interview), and region.

For region, she chose “three geographical regions that have previously been considered important in demarcating dialect areas—the Atlantic Coastal Plain, the Piedmont, and the Appalachians” (1996: 13). By choosing these relatively rural and self-contained regions, she deliberately maximized the relative influence of region as a linguistic correlate compared to other factors.

Johnson then interviewed her 1990 subjects in the field using the LAMSAS worksheets that Lowman had used 60 years earlier, eliciting responses for 150 lexical items. The items were selected from the 480 lexical items in the original survey for their old-time

prominence as productive variables and for their historical significance in analyses by Hans Kurath and others (1996: 5-7). Again, by choosing this lexical subset, she intended to maximize the variability in her results.

At all possible points, Johnson replicated Lowman's methods. She not only followed the same guidelines that Lowman had followed (reprinted in Kretzschmar et al. 1994, with Johnson as one of the co-authors) but she studied Raven I. McDavid's techniques in a tape-recorded interview. She conducted three pilot interviews to make herself familiar with the protocol (1996: 10) before undertaking her actual interviews. Put plainly, she made the 1990 interviews comparable with the 1930 ones as far as humanly possible.

By doing so, Johnson provided an invaluable basis for comparing the impact of changing social conditions on linguistic variation across the 60-year interval. Johnson compared statistically significant correlations for lexical variation in 1990 with the LAMSAS results from the 1930s. In Table 2 (Johnson's Table 6), the independent variables are ranked by their significance in the 1930s. The most influential correlate, Region, is at the top, and the least influential, Sex, is at the bottom. Region not only tops the list but it does so emphatically, accounting for three-tenths of all correlations and exceeding the next-highest correlate, Rurality, by 9 per cent.

The rank order of the independent variables in 1990 differs mainly by the displacement of Region from its previous position at the top to a position at the bottom, dead last. Otherwise, the rank order shows considerable similarity across the decades. In both periods, Rurality, Education and Race exceed Age and Sex as correlates, though the internal order of Rurality, Education and Race is uncertain in the 1990s because they end up in a tie. In any case the differentials between the variables are small where they do differ.

	1930s		1990	
Region	30%	(31)	10%	(7)
Rurality	21%	(22)	20%	(14)
Education	19%	(20)	20%	(14)
Race	13%	(13)	20%	(14)
Age	10%	(10)	19%	(13)
Sex	7%	(7)	11%	(8)
TOTAL	100%	(103)	100%	(70)

Table 2—Percent/Number of statistically significant tests by variable (Johnson 1996: Table 6, 31, with last row added)

Generally, the results are much blander in the 1990 than they were in the 1930s. The blandness is largely predictable from the social changes between the two periods, because linguistic homogeneity is the expected result of greater social mobility (Chambers 1995: 65-66). This increased homogeneity is visible in Table 2 from the decrease in linguistic variables that yield statistically significant correlations with any social factor at all, which

even in these ex-urban settings have diminished by over 30 per cent (103 to 70 as shown in the last row). In general, Johnson's results show that many people in the southeastern United States now use the same words for things where their grandparents tended to use words that were different from the people in the nearby regions.

For my purposes, the most important result of Johnson's comparison is her empirical demonstration of the diminished status of Region as an independent variable in slightly fewer than 60 years. The graphic representation of Table 2, shown as Figure 1, illustrates the change dramatically. Where Rurality and Education have more or less held their own as determinants of dialect, relatively speaking, and Race, Age and Sex have increased their relative prominence, Region has plummeted like a rock as the least significant among these independent variables both relatively and absolutely.

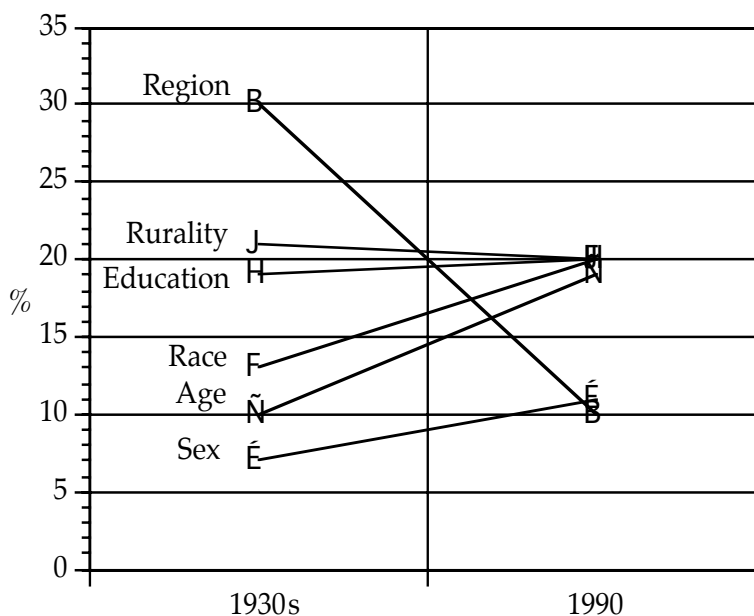


Figure 1—Statistically significant linguistic correlations with social variables in the 1930s and in 1990 (based on Johnson 1996: Table 6)

Johnson's meticulous results accord with intuitions about the way social changes have affected regional language varieties. They demonstrate the empirical reality that underlies those intuitions.

4. Nonmobility as a Constant

Traditional dialectology selected subjects as a judgement sample, with a predetermined and usually tightly circumscribed set of social characteristics. The set of characteristics was based on a prototype informant known as NORM, an acronym for nonmobile, older, rural (predominantly) males (Chambers and Trudgill 1998: 29-30). The Survey of English Dialects, for instance, which conducted its field interviews in the period 1948-61, assiduously sought NORMs (Orton 1962).

As social conditions altered, dialectologists tended to relax the informant prototype,

albeit with a cultural lag. The Linguistic Atlas of the United States and Canada (LAUSC), though inaugurated some 15 years before the Survey of English Dialects, provided a broader definition from the outset, presumably as a reflection of the greater democratization of American society as compared to British society at the time. The LAUSC guidelines called for NORMs (type IA in LAUSC terms) in all locations but provided for other subject-types with wider social contacts and more extensive education in about one-fifth of the locations (Kurath 1972). In the second half of the twentieth century, the regional directors of the American surveys broadened their informant profiles further within these general guidelines. Thus fieldworkers for the New England atlas, who completed their interviews in 1936, included many fewer women, blacks and middle-aged people proportionately than did fieldworkers in the Upper Midwest, where work was completed in 1954 (Allen 1973-76). The most recently completed project area, the Gulf States, for which fieldwork ended in 1980, drew its subjects from a broad social spectrum in terms of sex, age, race, and populace, to the point where it approaches inclusiveness (Pederson 1986).

Of the prototypical characteristics, the one that dialectologists have clung to with greatest fidelity is nonmobility. Orton expressed the entrenched opinion when he noted that “dialect-speakers whose residence in the locality had been interrupted by significant absences were constantly regarded with suspicion” (1962: 15-16). McDavid said, “there is a deliberate bias in the selection of informants, insistence on local roots and a statistically disproportionate sample of the older and less educated” (1981: 71). Pederson, director of the Gulf States project and direct descendant of McDavid’s tradition, relaxed the bias toward the elderly and uneducated but retained the bias toward local roots. For him as for his predecessors, “local nativity was the primary criterion in the choice of all subjects” (Pederson 1986: 21). Thus, in traditional dialectology, sex, age, education and other social factors have become more variable but region, with its hallmarks of local nativity and immobility, has remained more or less constant.

Maintaining the bias toward subjects with local roots and restricted mobility becomes less desirable as NORMs dwindle in the population. It might soon be simply impossible. Even the most insular communities nowadays, like Sele in Carinthia, include residents who were not born there. Middle-class societies famously feature loose networks as compared to the classes above them and below them, which tend to be more clannish, closed and normative. In New-World societies like Canada and the United States, and increasingly in Old-World societies that are democratic and industrial, the middle-class predominates, outnumbering all other classes put together and thus dominating the styles and tastes of society at large. Neighborhoods tend to be comprised of people who are loosely affiliated with one another and sometimes not affiliated at all. In most middle-class neighborhoods, it is unusual to find even one family that has lived there more than one generation, and it is almost as unusual to find neighbors who have known one another since childhood or even adolescence. In some suburban neighborhoods, it is unusual to find residents who were born and raised in the same city, let alone in the neighborhood.

These conditions are so commonplace that it is sometimes hard to realize that they are fairly recent. One hundred years ago, people in Toledo and Tyneside and Dundee might have gone weeks or months without hearing an accent much different from their own.

People who lived in more remote regions, in, say, rural Ohio or Yorkshire or Tayside, might have gone a whole lifetime without talking to an outsider. “I was ten years old before I met anybody I didn’t already know,” said a professional baseball player who was raised in rural Pennsylvania. That kind of insularity, once so common that it could be stipulated as a condition for informants by dialectologists, has become rare.

5. Region as an independent variable

Dialectologists stipulated nonmobility because they assumed that mobility is a great leveler of accent and dialect. When people from different regions come together, they bring with them numerous differences, great and small, some in their speech. This mixing has long been recognized as a force in language change but so far only impressionistically. To explore it empirically, we need to treat region as an independent variable and try to discover how the speech features imported by outsiders figure in linguistic variation and change.

In *Dialect Topography* (Chambers 1994), we seek a representative population, with men and women ranging in age from 14 to over 80, working class and middle class. That population inevitably includes some subjects who are resident in the survey region but born outside it, so that in addition to the prized nonmobile subjects, our surveys also admit non-native, permanent residents. Obviously, if the non-native residents use linguistic variants uncommon in their adopted community, those variants get heard there and have some status in it. We want to know what those variants are and the extent of their use. Admitting non-natives in our survey thus requires us to implement some mechanism for identifying them in order to compare their language use to the natives.

We have integrated region into our survey as an independent variable called the Regionality Index (RI), as determined by the subjects’ answers to questions on the *Dialect Topography* questionnaire shown as Table 3. Regionality, in our terms, is a function of four main components:

- the place where the subject was raised from 8 to 18
- the place where the subject was born
- the place where the subject lives now
- the place where the subject’s parents were born

Based on the subjects’ answers to these four components, we assign them index scores on a scale from 1 to 7, with the best representatives of the region, called *indigenes*, receiving a score of 1, and the poorest representatives, called *interlopers*, receiving a score of 7. Subjects of intermediate degrees of representativeness are ranked in between these two poles.

Each component of the RI admits some variation, and to cope with that we weigh the factors according to proximity to the home region. The base score for each respondent is 1, determined usually by the place where he or she was raised from 8 to 18, the formative years for dialect development as for most other things. To that score of 1, we then add a score between 0 and 2 for (a) the place where the respondent was born, (b) the place where the respondent lives now, and (c) the place where the respondent’s parents were born. It is a commonsense procedure, which, like written instructions for tying a

shoelace, sounds more complicated than it is.

Where were you raised from ages 8 to 18? (What town, city, district? Name the province, etc., if useful.)	
Where were you born?	Where do you live now?
Where was your father born?	Where was your mother born?

Table 3—Questions pertaining to region on the Dialect topography questionnaire.

Native-born, second-generation residents of the region earn a score of 1, by the following calculation: if a woman lived in Toronto from ages 8 to 18, then Toronto is the region she represents. She receives 1, and if she was also born in Toronto, add 0; if she lives in Toronto now, another 0; if one (or both) of her parents was born in Toronto, add 0. Thus her Regionality Index (RI) is 1 (1 + 0 + 0 + 0), and the score of 1 indicates that she is an excellent representative of the region.

At the opposite extreme, subjects whose formative years were spent outside the region score high. To take an extreme (but by no means unknown) case: if a man who is a long-time, permanent resident of Toronto was raised in Montreal from 8 to 18, we would add 2 to his base score of 1; if he was born in Montreal, add 2 more; if one (or both) of his parents was born in Poland, add 2 more. His Regionality Index (RI) would be the maximum 7 (1 + 2 + 2 + 2), and he is, of course, a marginal representative of the region.

Between the indigenes with RI 1 and the interlopers with RI 7 there are five points on the continuum, and in Table 4 I have provided profiles for each point (Chambers and Heisler 1999). The gradation is well-defined at the two poles—hence the defining terms ‘indigenes’ and ‘interlopers’—but fuzzy in between, roughly characterized as ‘more indigenous’ at the low end and ‘less indigenous’ at the high end.

Status	RI	Profile (note: other combinations are possible)
↑ ↓	1	born, raised, living in same place as parents
	2	born, raised, living in region, parents born in province
	3	born, raised, living in region, parents born out of province
	4	raised and living in region, but born elsewhere in province
	5	raised and living in region, but born outside of province
6	living in region, but born and raised elsewhere in province	
interlopers	7	living in region, but born and raised outside of province

Table 4—Regionality Index (RI) with profiles for the intervals from RI 1 to RI 7 (based on Chambers and Heisler 1999: Table 5)

The RI provides a gross measure of the subjects’ links to the region. We are interested in

discovering the relationship between their links to the region and their use of local linguistic variants, that is, the extent to which they talk like a local. We would like to know how close the ties have to be before a person ‘speaks like a native’. How distant are the affiliations that mark a person as an outsider? In other words, we would like to discover what the significant thresholds of regionality might be.

The seven-point scale is relative, and the scale invites clustering into sub-types in a fairly natural way. I have shown the partitions for what seem to me to be the most obvious sub-types (indicated by the horizontal lines in Table 4) based on the component criteria. The profiles cluster with the following common elements:

- RI 1-3 respondent is born, raised and living in survey region
- RI 4-5 respondent is raised and living in survey region but born outside
- RI 6-7 respondent is living in survey region but born and raised outside

The finer subdivisions have to do with the relative distance from the survey region at birth or in the formative years. The RI thus provides an empirical basis for inferring the sociolinguistic impact of outsiders who are the purveyors of non-local linguistic variants in their adopted speech community.²

6. Three Case Studies

In the sections that follow, I discuss three variables for which we have found significant correlations with the Regionality Index (RI). These three happen to be lexical variables, which makes them comparable to one another in terms of structural level and also, perhaps, eliminates some of the complications that might arise with variables that come from deeper levels of language. They are interesting in their own right, each one revealing nuances about word formation and regional usage patterns. Though they share some general similarities, as discussed in the final section, they are different enough from one another in their sociolinguistic patterns to suggest the range of possibilities that can be revealed by considering regionality as an independent variable.

6.1. Bureau in Quebec City. I start with a fairly simple example of lexical variation in Quebec City, an English-minority region in the French-speaking heartland of Canada (Chambers and Heisler 1999).³ Long-time residents of Quebec City showed a different preference from newer arrivals in the lexical variants that were offered in answer to the following question:

What do you call the piece of furniture where you keep your socks, underwear, and other clothing?

The respondents offered several names, of which three particularly stood out. *Dresser* was offered by 139 respondents, *bureau* by 75 respondents, and *chest of drawers* by 40 respondents. Figure 2, which plots the variation in the use of these three variants in terms of the RI of the 254 subjects, shows that *dresser* is the standard term in Quebec City, as it also is in all the regions in Canada we have surveyed so far. Figure 2, incidentally, provides a functional definition of what is meant by ‘standard’. *Dresser* is the majority choice in all groups except for those with RI 1, and its use is also consistent across the

whole population, as indicated on the figure by the line being relatively flat for all respondents with RI 2 and higher.

Notwithstanding the general preference for *dresser* in Quebec City English, the two minor responses, *bureau* and *chest of drawers*, make a fair showing. Moreover, they contrast with one another. *Chest of drawers* appears to be virtually unknown by the respondents with the closest ties to the region, that is, the people with RI 1-4, but its use increases for the respondents with RI 5 and higher, that is, the respondents who came to Quebec City as adolescents or adults. It is used by 25 per cent or more of these non-natives. The pattern for *bureau* is just the opposite: its use is highest for indigenes and it gradually decreases across the graph. Strikingly, for the most indigenous, those with RI 1, the use of *bureau* is the majority choice. The use of *bureau* is very well entrenched in the usage of lifelong residents of Quebec City. Projecting into the past from these apparent-time results suggests that at an earlier time, prior to the 70 years recoverable from the Dialect Topography survey, *bureau* was probably the standard term in Quebec City English, though it has clearly been supplanted now by *dresser*.

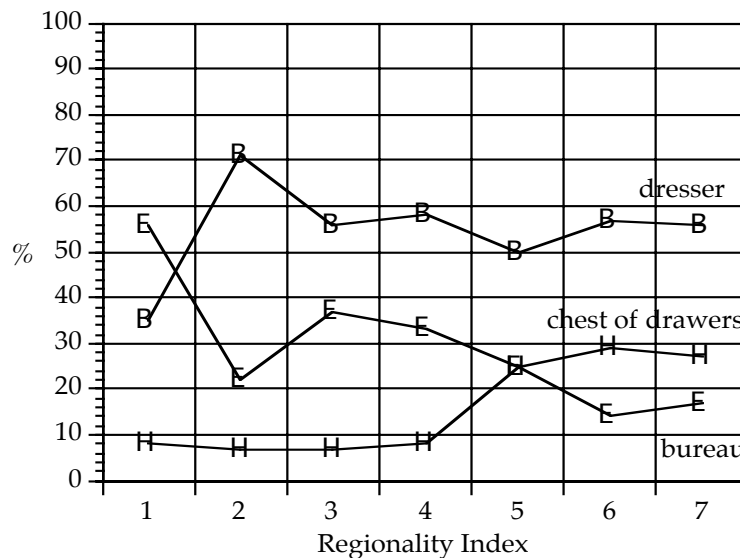


Figure 2—Choice of *dresser*, *chest of drawers* and *bureau* by RI in Quebec City (Chambers and Heisler 1999: Figure 6)

The relatively frequent use of *bureau* by Quebec City anglophones, especially indigenes, marks a curious convergence between francophone and anglophone varieties in Quebec City. The English word *bureau* is, of course, a French loanword. It originally came into English in the eighteenth century (according to OED) with its standard French meaning, ‘office’, and it still exists hardily with that meaning in all varieties of English today. Soon after, a second meaning developed, apparently through a process of metonymy, because in British English (and from it in other English varieties, including Canadian English) a bureau eventually came to mean not only an office but also a particular piece of furniture

found in offices, a kind of desk with drawers and a hinged top that folds down to make a writing surface. Actually, these writing desks were less often found in offices (real bureaus) than in homes, where they provided a workspace in which people could carry out the kinds of activities typically done in offices. The writing desk with drawers was effectively the home office, its bureau.

The meaning of *bureau* as a chest with drawers into which people put socks, underwear, and other small articles of clothing is apparently a further extension of this metonymic meaning of 'bureau'. Semantically, this last step in the chain of inference seems oblique. The metonymic specification from an office to a piece of furniture used as an office is straightforward, but it is a fair leap from there to a piece of bedroom furniture roughly similar in size but not in shape or function.

Under ordinary circumstances, we might expect that the word with its oblique meaning would not transfer easily across dialect boundaries, much less across language boundaries, but that is not so. This oblique meaning of *bureau* is found in virtually all varieties of English and also, significantly, in contemporary Quebec French. European French varieties, by contrast, do NOT include the meaning for *bureau* as a chest of drawers. The use of *bureau* in this sense must have found its way into Quebec French circuitously, presumably as an *English* loanword.

Given its widespread use in English, it is not surprising to find *bureau* with this extended meaning in the English of Quebec City. In most parts of the world as in Quebec, the word is a recessive variant; its period of greatest currency, if it had one, is past. Its decline in the southeastern United States, for instance, shows up in Johnson's real-time replication, where *bureau* was the term used by 68 per cent of the rural population for a chest of drawers in the 1930s, but in 1990 it is used by only about 5 per cent (1996: 160). In the Canadian English heartland, the southern Ontario region around Toronto and Niagara known as the Golden Horseshoe, *bureau* as a chest of drawers accounts for only 5 per cent of all responses and is almost unknown by young people.

In Quebec City English, *bureau*, while obviously a minor variant, nevertheless has considerably greater currency than anywhere else we have looked so far, being used by almost 30 per cent of the respondents. This is the only instance we have uncovered of a word that occurs with the same specialized (or regional) meaning in both Quebec French and Canadian English. The fact that it occurs in both languages in the community does not directly account for its currency. That is to say, there is no evidence that Quebeckers use *bureau* in English because they also use it in French, or vice-versa. For one thing, our study of Quebec City English surveyed only native anglophones, and for another there is no correlation between the amount of French used by our respondents in daily situations (measured by what we call the Language Use Index) and their choosing *bureau* over *dresser* or *chest of drawers*. If there is a relationship, it must be the vaguer one that the coincidence of *bureau* occurring with this specialized meaning in both languages bolsters its salience in both languages.

6.2. Running Shoes in the Golden Horseshoe. Another response that correlated with the Regionality Index came in the answer to this question (from Zeller 1990: 11):

Q39 What do you call the rubber-soled shoes that you would wear with [jogging clothes]?

In answer to this question, respondents in the central Golden Horseshoe region of Canada supplied 23 different lexical items plus various combinations. The profusion is partly the result of the extensive use of clipping as a word-formation device in this semantic field. For five compounds with the headword *shoes*, our respondents also offered clipped counterparts. The following list shows the compounds with *shoes* paired with their clipped variants (with the number of responses in parentheses):

running shoes (552)	>	runners (132)
jogging shoes (5)	>	joggers (2)
sport shoes (3)	>	sports (1)
tennis shoes (5)	>	tennies (1)
training shoes (1)	>	trainers (1)

The association of clipped forms alongside full forms automatically doubles the set of variants. Three of the clipped forms add the agentive marker (-*er*) to the participle stem (*run*, *jog*, *train*). It is interesting to note that another common word for this kind of footwear, *sneakers* (with the second-highest number of responses) has the right inflections to be formed on this morphological model, but the equivalent compound form **sneaking shoes* does not exist:

*sneaking shoes (Ø)	>	sneakers (176)
*sneaking shoes (Ø)	>	sneaks (2)

Similarly, the clipped form *sneaks* occurs twice as a response, and here again, on the analogy of *tennis shoes* > *tennies*, the nonexistent form **sneaking shoes* is implied but does not occur.

The Golden Horseshoe survey region that is the source of these data encompasses the Niagara border between Canada and the United States. When we look at the distribution of the major variants, we see a clear border effect (Easson 1998) in the responses of the 80 Americans along the border compared to the 935 Canadians. Table 5 shows that the three most common responses on the shoe question correlate strongly with nationality.

	Canadian	American
<i>running shoes</i>	70% (551)	1.4% (1)
<i>runners</i>	17% (132)	—
<i>sneakers</i>	13% (106)	98.6% (70)

Table 5—Distribution of three lexical variants at the Niagara border.

Running shoes is the standard Canadian term and *sneakers* is overwhelmingly the standard American term. The third term, *runners*, is a minority term in Canada but does not exist at all in the United States. Zeller (1991) asked this same question of Canadians and Americans at the Detroit-Windsor border, and got the same result: *runners* does not cross the Canadian border there either. Together, the evidence at the two border points indicates that *runners* is a kind of ‘pure’ Canadianism, by contrast to the standard

Canadian term *running shoes*, which is definitely a Canadianism but has some status, albeit very minor, among Americans at the border points.

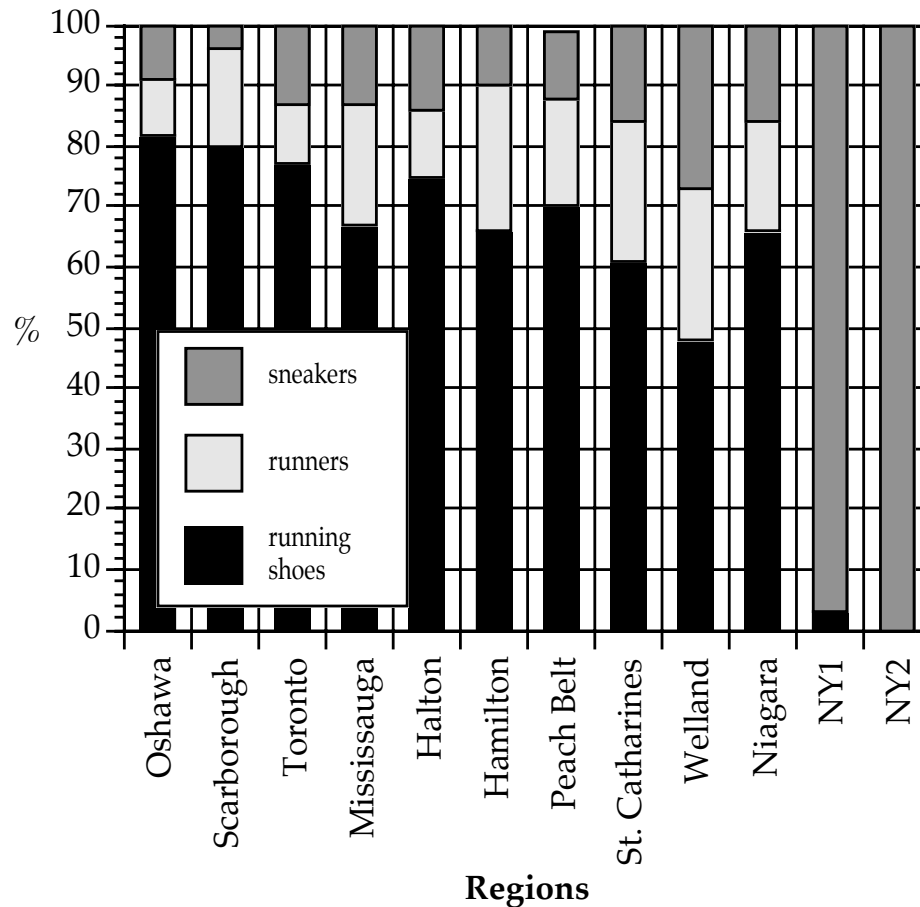


Figure 4—Regional distribution of three lexical variants in the Golden Horseshoe, including the U.S. border region

The geographic distinction at the Niagara border, showing both the exclusiveness of *runners* and the minor spread of *running shoes*, is shown graphically in Figure 4. This is a cartogram, with the regions ordered geographically along the abscissa starting with the furthest from the Niagara border (Oshawa) to the closest (Niagara). The American respondents are identified as NY1 (Buffalo, Niagara Falls and other places on the border in New York state) and NY2 (Rochester, New York, and other sites away from the border). The frequency of the three major variants is shown in stacked bar graphs, and the divisive effect of the border is patent. Figure 4 provides a quantitative representation of an isogloss.

Obviously, the distribution marks both *running shoes* and *runners* as indigenously

Canadian, but it also shows that the term *sneakers* has some currency in all the Canadian regions. When we look more closely, we discover that these lexical choices by the Canadians correlate with Regionality Indices (RI). Figure 5, like Figure 2 above, ranks the Dialect Topography respondents according to their RI with the indigenes at the left and the interlopers at the right. The gross correlation is visible in the two major trends: the lines descend for both *running shoe* (alone) and for *running shoe + runner* (combined), and the line rises for *sneakers*.

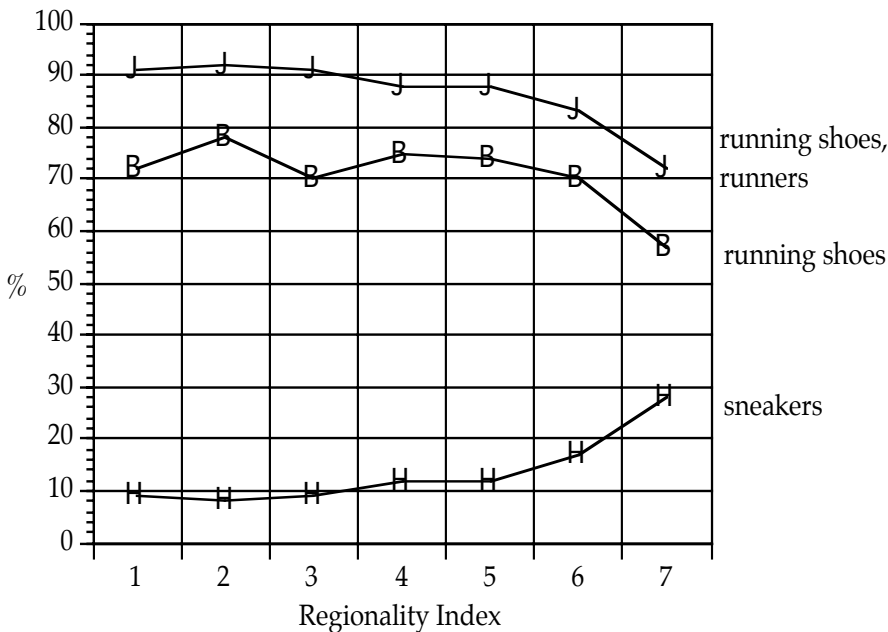


Figure 5—Use of three variants by Canadians in the Golden Horseshoe according to Regionality Index

It should not be surprising to discover that the people with the closest roots in the Golden Horseshoe are the most likely users of its characteristic lexical items, or, conversely, that people with looser ties are the least likely users. The shape of the lines further reveals some clustering along the RI scale. Looking at the top line (*running shoes, runners*) the responses appear to be level across RI 1-3, and then there is a slight decrease in RI 4-5, and more dramatic decreases in RI 6 and RI 7. These clusters correspond impressionistically to the intuitive aggregates indicated in Table 4 above, where the profiles were partitioned in terms of birthplace and early experience.

As a check against intuitions, I aggregated the points on the RI scale using the log linear statistical program VarbRul (Rand and Sankoff 1990) in order to discover where the most statistically significant gaps occur. The aggregates and their correlates are shown in Table 6. The sharpest differences separate RI 1-3, the natural class of respondents born, raised and still living in the survey region. Another sharp difference separates RI 4-5, the natural class of respondents raised and living in the survey area but born elsewhere. But the two interloper classes, RI 6 and 7, are split, with the rank outsiders (RI 7) disfavoring the use

of the local variants much more than the others. It is the most significant split in terms of statistical significance.

RI	<i>running shoe/ runner</i>	Factor Weight
1-3	91% (72/19)	.591
4-5	88% (74/14)	.509
6	83% (70/13)	.406
7	72% (57/15)	.262

Table 6—Use of *running shoes* or *runners* by indigenes and interlopers in the Golden Horseshoe

These results find a ready interpretation. The main difference between RI 6 and RI 7 is whether the respondent was born in the province or outside it (as indicated in the profiles in Table 4 above). They are otherwise indistinguishable. Since the use of *running shoes/runners* is (at least) province-wide, it is the native variant for people with RI 6 but not necessarily for those with RI 7, who were born out-of-province, some of them, of course, in the United States.

6.3. Soft Drink in Quebec City. The words that people use to refer to carbonated drinks vary regionally in Canada and around the world. The commercial manufacture and sale of such beverages became commercially significant as long ago as 1893, when the name ‘Coca-Cola’ was registered as a trade mark in the United States, seven years after its syrup was first concocted in Columbus, Georgia, but it became a global phenomenon only after World War II, symbolically in 1945, the year that the word ‘Coke’, the iconic abbreviation of Coca-Cola, was registered as a trade mark.

We asked our respondents: “What do you call a carbonated soft drink?” (again, following Zeller 1990). In Quebec City, although the responses included several minor variants and a large number of multiple responses, as shown in Table 7, two terms, *soft drink* and *pop*, clearly dominated. The distribution of the variants in Quebec City makes a striking contrast to their distribution in the Golden Horseshoe, shown in the parallel column in Table 7. There, one response, *pop*, is the overwhelming choice, whereas in Quebec *pop* is the second response after *soft drink*.

	Quebec City	Golden Horseshoe
<i>soft drink</i>	44.5% (117)	2.0% (18)
<i>pop</i>	38.0% (100)	86.3% (768)
<i>soda</i>	11.8% (31)	6.5% (58)
<i>sodapop</i>	1.1% (3)	1.0% (9)
<i>cola</i>	1.5% (4)	0.9% (8)
<i>coke</i>	1.1% (3)	2.0% (18)
other brand	1.9% (5)	1.1% (10)

Table 7—Names for carbonated drinks in Quebec City and the Golden Horseshoe counting only single responses.

The list of words in Table 7 shows the broad semantic range from which the nomenclature is derived. *Coke* is the trade-marked brand name from the abbreviation for Coca Cola, as noted above, but in this context it represents all brands, by generalizing the most common brand name to the whole field, as happened with Kleenex for facial tissue and Hoover for vacuum cleaners, among other familiar examples. In the naming of soft drinks, other brand names occasionally generalize as well as shown in the last row of Table 7 (most commonly, *pepsi*, *ginger ale*, *soda water*). *Cola* as a generic term is much more recent and presumably arises as a back formation based on Coca Cola, Pepsi Cola, and similar brand names, with *cola* construed as the headword in the compound; *cola* originally indicated the presence of cola seeds in the concoction, a source of caffeine from tropical cola trees. *Soda*, though listed as ‘unknown origin’ in OED, almost certainly comes from a clipping of sodium carbonate, also known as ‘washing soda’, probably the most familiar of the carbonates, one of the salts of carbonic acid that make beverages effervesce. The word *pop*, notwithstanding its appearance of twentieth-century American frivolity, is actually the most venerable of all the words and is apparently of British origin. The poet Robert Southey (1774-1843) explained the meaning of the then-new word and its onomatopoeic origins in a letter to a friend in 1812: “A new manufactory of a nectar, between soda-water and ginger beer, and called pop, because ‘pop goes the cork’ when it is drawn” (OED citation; discussed further in von Schneidemesser 1996, along with other names and their American distribution). *Soft drink*, the preferred term in Quebec, originated as the antonym for hard drink, an alcoholic beverage usually with spirits rather than beer or wine; ‘soft drink’ originally indicated any alcohol-free drink.

The distribution of these variants in Quebec City is unusual because the numbers suggest there is only a very marginal regional preference, with both *soft drink* and *pop* making significant showings. But closer inspection reveals the significant correlation with the RI, and a clear regional preference for *soft drink*. The trend in Figure 8 shows that it is the indigenes on the left who favor *soft drink* and the interlopers on the right who favor *pop*. In between, the incidences of *soft drink* decrease from left to right as the incidences of *pop* increase.

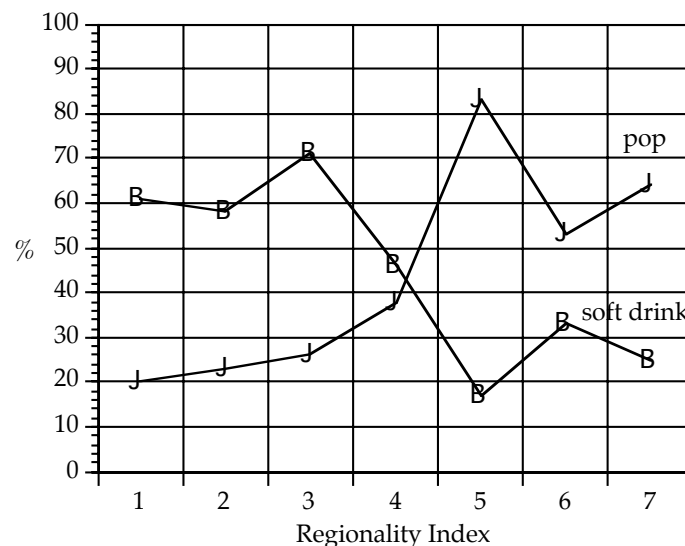


Figure 8—Use of *soft drink* or *pop* by RI in Quebec City

Because *pop* is the overwhelming choice in the Golden Horseshoe and other parts of Canada outside Quebec, it comes as no surprise to discover that it is the term the interlopers use, especially those with RI 5 and RI 7, who were born outside of Quebec (as indicated in the profiles in Table 4). We know from other sources, anecdotal and otherwise, that *pop* is stigmatized in Quebec City, with many Quebecers shunning it as a marker of the speech heard across the provincial border in Ontario.⁴

Quebec's preference for 'soft drink' places it in select company. Only a few pockets in the South and South Midland of the United States also favor *soft drink* as the general term (von Schneidmesser 1996: Figure 5, 275). There is also a diffuse distribution of the term throughout the States but not geographically concentrated, presumably reflecting its source as the generic term for non-alcoholic drinks. Quebec is too far removed geographically from the American pockets to have either influenced them or been influenced by them. The Quebec use of *soft drink* as the standard term is apparently an independent development. One possible source for it might be the Quebec French terms *boisson gazeuze* 'carbonated drink' or *liqueur douce* 'soft liqueur', both of which bear a translatable resemblance to 'soft drink' and, obviously, none at all to 'pop'. It is possible that the French terms led to the preference for *soft drink* not through loan translation by bilinguals but through more general exposure in advertising, signs in stores, vending machines, and other public displays (discussed further in Chambers and Heisler 1999). Or perhaps there is no direct connection between the French terms and the Quebec English term. The American pockets obviously arrived at their preference for *soft drink* without any French influence. In Canada, Quebec appears to be unique in this regard. In Quebec City (though not in Montreal; cf. note 4) the uniqueness is threatened somewhat by the words imported by interlopers, notably *pop*, as discussed in the next section.

Aggregating the RIs in Table 8, as for *running shoes/runners* above, in order to discover which components carry the most influence, shows RI 1-3 again clustering as a significant sub-group. Otherwise, the clusters are unfamiliar, with RI 4 split off from RI 5-7. Evidently the factor of birthplace in the province carries particular weight here, as the main distinguisher between RI 4 and the higher groups. No other combination stratifies the population as decisively.

RI	<i>soft drink</i>	Factor Weight
1-3	73%	.697
4	55%	.502
5-7	29%	.255

Table 8—Use of *soft drink* by indigenes and interlopers in Quebec City

7. Componential Analysis of Regionality

Lexical changes are among the most common, and probably the most rapid, of all linguistic changes. Because the lexicon is relatively accessible to consciousness, people

are often more or less aware that lexical changes are taking place. They can sometimes find reasons for them as well. Words come to be associated with certain social groups, and their currency waxes or wanes depending upon the social status of the group. When a word declines in frequency, it almost invariably goes through a period when its use becomes increasingly restricted to older people. This association is usually accompanied by social evaluations of it as outmoded or unfashionable. Adolescents, to take the most obvious case, seldom emulate their parents' generation in matters of fashion, broadly construed not only as hemlines and dance steps but also vocabulary. In Canada, a salient recent change was the replacement of *chesterfield* by *couch*, marking the loss of an indigenous Canadianism in favor of the northeastern American word in the span of about 70 years (Chambers 1995). "Oh yeah, my mother calls it that," replied a teenager in 1979 on being asked whether he knew the word *chesterfield*. Two decades later, the word was heard mainly in the speech of the grandparents' generation. It becomes quaint, and it is doomed.

The root cause of such changes seems to be nothing more profound than fashion. In Robert Hall's terms (1964: 298): "Every human language...has been re-made in accordance with our whims since the confusion of the Tower of Babel...and since [humankind] is a most unstable and variable being, language cannot be long-lasting or stable; but like other human things, such as customs and dress, it has to vary in space or time."

Of course, the replacement of one word by another requires as a precursor the availability in the community of a variant that can replace it. Here is where regionality can provide insights, by registering the occurrence of interloper variants and tracking their distribution in the community. Regionality makes concrete what was previously known only impressionistically and should in that way bring us closer to an explicit understanding of how linguistic change takes place.

The three case studies considered above appear disparate, but when we look more closely they reveal certain common elements and in fact seem to be linked as different steps in the replacement process.

Looking first at the aggregated RIs for *running shoe/runner* in the Golden Horseshoe and *soft drink* in Quebec City (Tables 6 and 8 above), the two processes share at least one gross similarity, namely:

- both isolate RI 1-3 as the most conservative sub-group.

As already noted, RI 1-3 share the traits "born, raised, living in region." Here is empirical confirmation that the indigenes are the best sources for the most conservative speech forms, supporting the dialectologists' age-old predilection for nonmobility as a criterion for choosing informants.

Where one's parents were born turns out to be less significant. The difference between RI 1 and RI 2-3 is that for RI 1 the parents were born in the same place as the respondents. In the distribution of *bureau* in Quebec City, RI 1 is significantly different not only from

RI 2-3 but from *all* the other levels. Further generalizations about the empirical significance of the components of regionality are harder to discern.

Evidently these three case studies have captured the process of lexical replacement at different stages. In Quebec City, the interloper word, *chest of drawers*, has attained almost equal status with the indigenous word, *bureau* (33 per cent to 38 per cent) and another interloper word, *dresser*, has become the standard term. By contrast, in the Golden Horseshoe, the interloper word, *sneakers*, has made scant progress against the indigenous *running shoes* and its clipped form *runners* (13 per cent to 87 per cent [= 70 + 17]).

These proportions in themselves do not seem particularly revealing. It is possible to imagine an interloper word having fairly high frequency in the life span of the interlopers themselves and then disappearing, or nearly disappearing, in the speech of their children. That pattern presumably has repeated itself countless times in the history of every speech community. If the interlopers fail to adopt the local words and persist in using the ones they brought with them from outside, either through obstinacy (perhaps out of lingering sentiment for the old home term) or oversight (perhaps out of ignorance of an infrequently heard local term), then their children normally will be the ones to adopt the local words, under pressure of peers and their own natal roots.

It is probably not just the frequency of the interloper word that poses the threat to an indigenous term. The real threat comes, surely, when the interloper word insinuates its way into the middle and lower reaches of the RI, that is, when the word occurs in the speech not only of the people least indigenous in the community but also of people who have been there a while—people raised and living in the region, though they were born outside it (that is, RI 4-5). That is the pattern for *pop* in Quebec City. *Pop* is the preferred word not only for the rank outsiders (RI 7 63 per cent) but for everyone RI 5 and higher (about 65 per cent). It is also very common (45 per cent) for RI 4, that is, people with quite clear local roots as having been raised locally though born outside; in their speech, *pop* competes with *soft drink* on almost equal terms. By contrast, in the Golden Horseshoe, *sneakers* makes a noticeable, though decidedly minor, showing in the speech of rank outsiders (RI 7 28 per cent, RI 6 17 per cent) but in the speech of all other groups it remains a very minor variant, almost nonexistent. It seems safe to predict that it will not persist in the speech of the interlopers' offspring, who will rank, if they are born and raised in their parents' adopted home, as RI 2 or RI 3.

One way of viewing lexical replacement and lexical change sociolinguistically would be to chart the progress of the interloper word at successive time intervals as it moves across the RI scale, starting in the speech of the interlopers and then gaining currency in the middle groups until it finally makes inroads in the speech of the indigenes. This is presumably the real-time pattern for lexical replacement, or at least for one common type. The three case studies discussed above, if viewed stroboscopically rather than as frozen frames, provide an apparent-time analogue. In Figure 5, the interloper word *sneakers* makes a sharp upturn in the speech of RI 6-7 but otherwise makes no ripples on the regional speech. In Figure 8, the interloper term *pop* has become the most common term all the way down to RI 5 and is on almost equal terms with *soft drink* even for RI 4. In

Figure 2, the indigenous term *bureau* has almost no currency among the newcomers (RI 6-7), and it has been supplanted by the term *dresser* to the point where it is now isolated in the speech of only the most indigenous people (RI 1). Its extinction is imminent, and easily projected from Figure 2.

These stages fit easily into a commonsense view of lexical change as a gradual social process. In order for individuals to adapt their speech to the local norms, they must be able to identify what those local norms are. If an interloper form retains its currency in the speech not only of interlopers but also among people of longer standing in the community, then there are at least two social forces working in favor of the replacement of the indigenous term. In the first place, interlopers arriving fresh in the community may fail to recognize that the indigenous local variant is different from the variant they grew up with since their word does get used in the community, or they may recognize it but feel less pressure to change their usage when their own usage is tolerated in the community, albeit as a minor variant. In the second place, and more crucially, if the offspring of the interlopers, the next generation of indigenes, fail to recognize which variant is the local one because two variants appear to be competing on roughly equal terms, then the decline of the indigenous term inevitably gathers momentum.

The Regionality Index thus provides an independent variable for charting lexical replacements and other linguistic changes that result from variants imported into a region by newcomers. In larger terms, it can elucidate with some precision one of the sociolinguistic effects of mobility. Results like these introduce a new dimension to the study of language variation as a regional phenomenon and provide a framework for the integration of regionality as one independent variable among many in dialect studies of urban settings.

NOTES

A shorter version of sections 3 and 5-7 was presented as “Regionality as an independent variable” at Methods X, the Tenth International Conference on Methods in Dialectology, at Memorial University of Newfoundland at St. John’s in August 1999. I benefited from comments by Joan Beal, Bill Kretzschmar, Luanne von Schneidmesser and Walt Wolfram at the conference, and have tried to incorporate them in this fuller version. Edgar Schneider and my associates in the Dialect Topography project (in note 3) offered helpful criticisms of earlier drafts.

¹ I am beholden to Helvi Helena Virkamäki for what I know about Finnish dialectology.

² Von Schneidmesser (1979) devised a similar metric for a similar purpose in her survey of lexical stability and change in Giessen, Germany. She classed her subjects in three categories of indigenes which she called A (equivalent to RI 1 in our terms), B (roughly RI 2-3) and C (roughly RI 4-7). Some of her results are summarized in Barbour and Stevenson 1990: 108-09.

³ Chambers and Heisler (1999) includes a detailed discussion of the sociolinguistic setting in Quebec City and the complex patterns of linguistic variation that are occurring there. This case study of *bureau* and the third one (*soft drink/pop*) were first discussed there. I am grateful to Troy Heisler for his help in developing them. This article substantively adds the statistical thresholds of the RI and the componential analysis of RI

that follows from them in the final section. Christiane Richter de Poppe supplied information on the words for carbonated drinks. I am also beholden to Gord Easson and Mary MacKeracher, research assistants in the Dialect Topography project, for help with the analysis and interpretation.

⁴ In Montreal, the other major city in the province of Quebec, the avoidance of *pop* as the interloper word is more clearly marked. There, the list of preferences (counted as in Table 7) is: *soft drink* 61.3%, *pop* 10.4%, *soda* 21.2%, *sodapop* 0.4%, *cola* 1.1%, *coke* 2.5%, and other brand names 2.9%. The English-speaking minority in Montreal is much larger and much less fragmented than in Quebec City, with proportionately fewer interlopers.

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