Part F  Other views of regional differences
21. Lexical and grammatical maps

ANAЕ is a phonological atlas, concerned with the geographic distribution of the sound systems of North American English. Information on the distribution of particular words and the incidence of phonemes in those words, can be obtained from LANE, LAMSAS, LAGS, LAUM, and DARE. The Telsur interview did inquire into a small number of grammatical variables, and several vocabulary items, as a way of correlating ANAE findings with these other studies. This chapter will present maps of four such items and their relation to the dialect boundaries drawn in previous chapters.

21.1. Terms for ‘carbonated beverage’

The ANAE interview schedule contained several lexical questions. The first is: What’s the general term you use for a carbonated beverage in your area? Five terms with specific geographic patterns are displayed in Map 21.1: soda, pop, coke, tonic, and soft drink. When a subject gave more than one answer, the colored token on the map shows the more common response.

The dominant form used in the northeastern area is soda. The soda territory outlined in Map 21.1 is considerably larger than any previous view of the Northeast: it includes all of New York State except for the western end, the Mid-Atlantic states, and the Upper South, extending southward to include eastern North Carolina.

Soda is also heavily concentrated in an area centered on St. Louis, which is distinct from most Midland areas in its phonological patterns as well (Chapter 19). The St. Louis area extends northward to the lower part of the St. Louis corridor, and westward across Missouri to St. Joseph. Here however we do not see a St. Louis connection with the Inland North usage, which is dominated by pop, but rather with a Mid-Atlantic–Northeastern term.

A third soda area is located in the southwestern portion of the West, including communities in Arizona, Utah, Nevada, and California. The two large cities of California – San Francisco and Los Angeles – are not included, since they show a mixed pattern in which soda does not predominate.

Florida also shows a concentration of soda tokens, but since the communities are evenly divided between soda and coke, it is not identified as a soda area.

The South is the center of coke territory. The coke isogloss does not extend to the Virginia and eastern North Carolina, though there are four red symbols within that area; there is overlap with a slightly dominant use of soda. In Indiana, there is a striking northward extension of coke to include the Hoosier apex, with a strong presence of coke in Indianapolis. The coke domain extends westward, beyond the border of the phonological South, to include New Mexico and Tucson, Arizona. A scattering of red symbols can be seen further westward, within the blue soda area in the West.

The most coherent geographical area is enclosed in the green isogloss, delimiting the speakers who use pop as their general term. It includes the North (except for the soda areas in New York State and southeastern Wisconsin), the Midland (including Pittsburgh), almost all of Canada (excepting Montreal and Winnipeg) and the Pacific Northwest. In the Great Lakes region there is a notable scattering of the blue symbols that mark soda, but they are a majority only in the Milwaukee area.

The term tonic is well known to be characteristic of the Boston area, but in the Telsur data it does not predominate in any ENE city outside of Boston. It is also used by the two Telsur speakers in San Antonio.

Two minor terms in the South show a notable local concentration. Seven Telsur speakers responded cold drink. They are found in a narrowly delimited southwestern corner: three in New Orleans, three in Dallas, and one in Houston. Although this term may seem to be a general description and not on the lexical level of soda, pop etc., its geographic concentration in the area of New Orleans suggests that it is a local equivalent.

The term soft drink might also seem to be a periphrasis that is generally available to all speakers, but it occurs with notable frequency in two Southern cities: New Orleans and Atlanta. The New Orleans Telsur data includes more speakers than those shown on Map 21.1. The totals are: soft drink 6, soda 3, coke 1, cold drink 3.

Terms for carbonated beverage show a marked tendency to differentiate African-American speakers from others. In New Orleans, the three users of cold drink are all African-American. In Atlanta, three of the four African-American speakers use soda in preference to coke or soft drink. In Columbia, two of three African-Americans show the same preference for soda.

The clear-cut regional preferences for ‘carbonated beverage’ are not unrelated to the ANAE boundaries of Map 11.15. The South is delineated by coke with an expansion in the east–west dimension, while the Ohio River boundary between Midland and South is preserved. St. Louis is recognized as a distinct region. The Northeast is a coherent unit, though embedded in a larger soda area. Canada is unified with a few exceptions. In other respects, however, the lexical boundaries run counter to the phonological boundaries. The North–South boundary between soda and pop is orthogonal to the isoglosses that separate North from Midland and Midland from the South, and the West is divided into northern and southern components in a fashion quite distinct from anything seen in previous chapters.

The parameters of the three major ‘carbonated beverage’ isoglosses are shown in Table 21.1. The dominant forms are soda and pop, which account for 83 percent of the data. The most widespread term, soda, shows a high degree of homogeneity for the three isoglosses of Map 21.1, a value of .81. Neither of the other two terms approaches this value, since soda is a competitor in their regions of geographic concentration. For the same reason, pop and coke show high consistency, since they are geographically limited in the way that soda is not. Leakage values show a parallel pattern: pop and coke are very low, while soda is remarkably high. These figures jointly indicate that pop and coke, though very widely used, are regional terms in the sense that soda is not.

1 For reasons noted in Chapter 9 (Figure 9.3), a larger number of Indianapolis subjects were interviewed than for most cities. The distribution of responses for ‘carbonated beverage’ were: coke 8, soda 5, pop 2. soft drink 1. Indiana cities south of Indianapolis show a mixed pattern, with about 50 percent representation of coke.

2 Two out of the three Telsur subjects in Montreal used soda. However, much larger amounts of data on Canadian English reported in Boberg (2004, 2005) indicate that it is soft drink, rather than soda, that provides the major exception to the general Canadian term pop in both Montreal and Winnipeg, as well as in Newfoundland (Boberg 2004, 2005).
North America is sharply divided into regions by the general term for a carbonated beverage. *Soda* is used in the northeast, including the Mid-Atlantic States, and in a large southwestern area. *Coke* dominates the South, and extends much further westward than the phonological definition of the South. But *pop* is geographically the dominant term, extending over the Midland, the North, Canada, and the northwest. None of these boundaries match the phonological boundaries of North American dialects, though *coke* in the South comes closest.
Table 21.1. Isogloss parameters for four ‘carbonated beverage’ isoglosses

<table>
<thead>
<tr>
<th></th>
<th>Total marked inside</th>
<th>Total inside</th>
<th>Marked inside</th>
<th>Marked outside</th>
<th>Homogeneity</th>
<th>Consistency</th>
<th>Leakage</th>
</tr>
</thead>
<tbody>
<tr>
<td>soda</td>
<td>282</td>
<td>192</td>
<td>156</td>
<td>126</td>
<td>0.81</td>
<td>0.55</td>
<td>0.26</td>
</tr>
<tr>
<td>pop</td>
<td>276</td>
<td>391</td>
<td>260</td>
<td>16</td>
<td>0.66</td>
<td>0.94</td>
<td>0.03</td>
</tr>
<tr>
<td>coke</td>
<td>106</td>
<td>176</td>
<td>86</td>
<td>20</td>
<td>0.49</td>
<td>0.81</td>
<td>0.03</td>
</tr>
</tbody>
</table>

DARE gives a regional entry for coke as the general term for a carbonated drink, and describes its distribution as “Chiefly Sth, Smidland, SW”, which is not inconsistent with Map 21.1. DARE also supplies data on pop, with the map shown in Figure 21.1. Again, this is not inconsistent with Map 21.1, bearing in mind that any blank spaces in the DARE map would be filled with soda and coke. The pop area then would begin in western New York state, and extend westward to the north and north central states.

A large amount of data on these lexical distributions has been collected recently by Internet surveys. Figure 21.2 is a display of the current results of A. McConchie (2002) for the three major terms. The color coding is the same as that in Map 21.1, with blue, red, and green indicating soda, coke, and pop. The soda distribution of Map 21.1 is reproduced in Figure 21.2 as three areas: the enlarged Northeastern area, the St. Louis area, and the southwestern soda areas. The concentration of blue soda tokens in the area of eastern Wisconsin is stronger than in Map 21.1 and indicates an independent region of Northeastern soda influence there. Florida shows the same even division between Northern soda and Southern coke. An equal division of soda and coke in the upper South with coke appears as well.

Figure 21.2 also delineates the South in a manner parallel to Map 21.1. The Southern coke area is even more limited in Virginia and North Carolina, extends northward to Indianapolis in Indiana, and westward to New Mexico and eastern Arizona.

The large and highly homogeneous pop area is also identical with that shown in Map 21.1, with New York State split into an eastern soda area and a western pop area. The area of pop predominance extends to the Pacific coast, with the exception of Wisconsin and St. Louis.

The regional character of pop and coke appears in Figure 21.2 as the absence of green symbols in the Southern red area and in the predominantly blue areas. The more general recognition of soda can be seen in the scattering of brown or yellow symbols throughout the predominantly red and green regions, as well as in its predominance in widely separated areas on both coasts.

Internet surveys such as McConchie (2002), Vaux et al. (2004), and Campbell and Plumb (2002) are effective in accumulating large amounts of data without controlling for the geographic origin of the respondents. Figure 21.2 is a display of 149,000 responses. The maps provided by these internet surveys do not permit one to draw isoglosses with any degree of certainty, but there is a good coincidence of the areal configuration of these surveys with the 762 points of ANAE.

Figure 21.2. Distribution of soda, pop and coke in an internet survey (McConchie 2002)

21.2. /u/ and /uw/ in roof

Map 21.2 shows the incidence of /u/ and /uw/ in the word roof. It is a large and coherent area, encompassing most of the western portion of the Inland North and adjoining sections of the Midland. In New York State, only one small area around Syracuse is included in the /u/ territory.

The southern edge of the /u/ area follows an irregular pattern, including a part of West Virginia, but excluding Cincinnati. The lower third of the Midland area agrees with Southern /uw/ in roof. The /u/ area extends westward to the Pacific Northwest. Canada is strictly excluded, with no trace of /u/ in this word. In addition to the coherent area marked out by the main isogloss, a separate area of /u/ pronunciation is found in central California.

Table 21.2 displays the isogloss parameters for the /u/ ~ /uw/ line in roof.

The McConchie survey asks for “home town” with city, state, and zipcode without specifying further the years spent in that area, an approach which may be more suitable for lexical items than for phonological issues (Payne 1976).
From the many regional differences in lexical incidence, ANAE selected only a few for comparison with phonological isoglosses. This map shows the shortening of /uw/ to /u/ in the word *roof*. There is a clear geographic pattern, which reflects only in part the isoglosses drawn in Chapters 11–20. Shortened *roof* is found in the western sections of the North and the Midland, extending further westward to the Pacific Northwest, with smaller concentrations in California (excluding San Francisco) and central New York State. It is notably absent in Canada, the Mid-Atlantic States, and most of the South.
Table 21.2. Isogloss parameters for the /u/ in roof boundary

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<tr>
<th></th>
<th>Total</th>
<th>Total</th>
<th>Marked</th>
<th>Marked</th>
<th>Marked</th>
<th>Consistency</th>
<th>Leakage</th>
</tr>
</thead>
<tbody>
<tr>
<td>/u/ in roof</td>
<td>282</td>
<td>192</td>
<td>156</td>
<td>126</td>
<td>0.81</td>
<td>0.55</td>
<td>0.26</td>
</tr>
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</table>

21.3. The geographical distribution of positive anymore

A number of studies have found considerable geographic variation in Americans’ use of sentences with anymore in a positive context (Labov 1972; Hindle and Sag 1973; Hindle 1974; Murray 1993). The Telsur interview elicited responses to a range of grammatical forms, asking the subjects to respond on a three-point scale, with the instruction:

For each sentence I read you, I’d like you to tell me whether you think it sounds like something you could say yourself, or something you’ve heard around your area but you wouldn’t say, or something you’ve never heard before.

The subjects’ use of the positive anymore construction was assessed by responses to the following three sentences:

(a) What if you were looking at the price of a new car and someone said, “Boy, cars are sure expensive anymore!”?
(b) What if someone said, “It’s real hard to find a good job anymore”?
(c) What if someone said, “I used to watch football, but anymore I watch baseball”?

The scoring in Map 21.3 is based on the dominant pattern of response to these three sentences. A coherent region similar to the isogloss of Map 21.2 appears in which the majority of subjects respond that they would use this form themselves. The area outlined in red covers the Midland, including Pittsburgh and Philadelphia, and a good portion of the South Midland as defined in Kurath (1949). However, the line falls well to the south of the North/Midland lexical isogloss shown on Map 21.3. Chapter 14 showed that this isogloss delimits the phonological features that differentiate the North and the Midland. Both Indianapolis and Columbus show divided use. A slight majority of speakers in Indianapolis report the use of positive anymore themselves (8 out of 14), while only a minority of Columbus subjects do so (7 out of 17).

Two small areas of positive anymore use appear on Map 21.3 outside of the Midland area: one in north-central Pennsylvania and south-central New York, centered around Binghamton, and one in Southern Georgia and northern Florida.

Considerable caution must be exercised in interpreting these data. Positive anymore shows a disparity between intuitions and actual use. Long-term studies of positive anymore in Philadelphia show that the great majority of speakers will use anymore in constructions like (a)–(c) above, when enough spontaneous speech is recorded, but only about half will recognize this construction in response to direct questions (Labov 1972). Since it is not stigmatized overtly, and it is widely used by all social classes in speech, it is not yet clear why these intuitive responses differ so widely from practice.

Murray 1993 reports a large-scale mail survey of the use of positive anymore throughout the Midwest, which indicates its widespread use in Midland areas, especially those settled by the Scots-Irish. DARE has an extensive entry on positive anymore, along with the map of Figure 21.3. The density of responses is much lower than that of Figure 21.1. The highest concentration appears in Kentucky, Indiana, and Oklahoma, which is not inconsistent with Map 21.3.

Figure 21.3. DARE informants who use positive anymore sentences

21.4. needs with past participle needs+PPtc

A second Midland grammatical construction surveyed by ANAE is the use of the past participle as a complement of the verb needs (needs washed) where other dialects use the present participle (needs washing) or an infinitive passive with the past participle (needs to be washed). Map 21.4 displays data on responses to questions on the following sentences:

(d) What if there were crumbs on the kitchen floor and someone said, “the floor needs swept”?
(e) What if a mother said to her child, “your hair needs cut”?

This construction has long been identified with the Pittsburgh area, but studies such as Frazer, Murray, and Simon (1996) showed that it had a broader Midland base. Map 21.4 reproduces the solid-red isogloss from Map 21.3, and superimposes an oriented red isogloss indicating the outer limits of the response to sentences (d)–(e) “I would use this myself”, indicated here by red symbols. The needs+PPtc isogloss coincides generally with the positive anymore isogloss, but

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4 Wide differences in response to positive anymore sentences may be due in part to the cline of syntactic acceptability reported in Labov (1972) and Hindle and Sag (1973), but also due to pragmatic factors. In the eastern part of its range, positive anymore appears to be associated with the speech act of complaint. The cognitive dimension of “likelihood of occurrence” is then supplemented by the dimension of “speaker’s desire for the event to occur”. The LAMSAS schedule did not include positive anymore, but Guy Lowman did note sentences with positive anymore in his notebooks, and since the same sentence often occurs, it seems that he did ask for its acceptability. The density of such notations increased sharply when halfway in his westward trajectory across Pennsylvania. Lowman switched from a neutral sentence to the complaint Farmers are pretty scarce around here anymore. This high rate of notation continued throughout his interviews in the Appalachian states (R. McDavis, personal communication).

5 The maps in Murray (1993) are difficult to interpret, so that it is not possible to compare them with other results shown here.
This map charts the use of *anymore* in positive sentences like *It's real hard to find a good job anymore*. This is a well-known pattern of Scots-Irish origin found currently in Northern Ireland. In the U.S., it is reported throughout the Midland area as originally defined by Kurath, uniting the Upland South with the Midland as defined by ANAE. A concentration of positive *anymore* users is also seen in central New York State and southern Georgia.
The syntactic construction *The car needs washed* represents the use of the past participle where other dialects use the present participle with *-ing*. Its distribution matches closely the Midland pattern of *positive anymore*, superimposed here from Map 21.3, but is somewhat narrower, excluding most points south of the Ohio River and the outlying concentrations in Georgia. It corresponds more closely to the ANAE phonological definition of the Midland than *positive anymore*. One outlying city is notable – Phoenix, Arizona. The extension of the Midland to areas of the central Northwest is almost identical with that of Map 21.3.
is more tightly confined to the Midland region as defined in Chapter 11. It does not extend as far southward, but stops at the Midland/South line marked by the Ohio River, and extends further northward to include the Midland cities of Ohio — Columbus, Akron, and Canton. The lexical North/Midland isogloss derived from Carver (1987) is added here again to show the degree of approximation of the needs+PPtc line to the North/Midland boundary. The oriented red line includes Harrisburg as well as Scranton, but does not reach eastward into southeastern Pennsylvania and Philadelphia. The westward extension to the Midwest and the North Central states matches the positive anymore line quite closely, varying with only a few border cities. In general, the needs+PPtc area is a subset of the positive anymore area.

The African-American subjects in Atlanta testify uniformly to the use of this construction, while others in that city do not. This is a further indication of the extent of racial differences in the Southern cities.

The geographic information given in Frazer, Murray, and Simon (1996) is consistent with Map 21.4. Their Figure 1 indicates a general Midland distribution, and their Figure 2 shows that the northern limit of needs+PPtc in Illinois falls close to the North/Midland line.

Responses to questions about needs+PPtc are subject to the same uncertainties as positive anymore, in that conscious recognition falls short of spontaneous speech. The isogloss parameters for these boundaries are similar, as shown in Table 21.3. needs+PPtc has somewhat lower homogeneity, and higher consistency. The geographic limits of needs+PPtc are more discrete, as confirmed by the low leakage value.

Table 21.3. Isogloss parameters for two Midland grammatical features

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<th>Total marked</th>
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<th>Homogeneity</th>
<th>Consistency</th>
<th>Leakage</th>
</tr>
</thead>
<tbody>
<tr>
<td>positive anymore</td>
<td>214</td>
<td>227</td>
<td>151</td>
<td>63</td>
<td>0.67</td>
<td>0.71</td>
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</tr>
<tr>
<td>needs+PPtc</td>
<td>106</td>
<td>176</td>
<td>86</td>
<td>20</td>
<td>0.49</td>
<td>0.81</td>
<td>0.03</td>
</tr>
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