Chapter 9 traced the history of the Northern Cities Shift in the Inland North and Chapter 10 traced the political, religious and cultural history of that region. These joint histories raise the possibility that the continued influence of Yankee ideology contributes to the momentum of the Northern Cities Shift across the Inland North. Is there any evidence that the NCS, operating far below the level of social awareness, is identified unconsciously with a stance favoring the reduction of racial inequality and other liberal political positions?

Chapter 10 dealt with two such positions: attitudes towards slavery and racial inequality, and state-by-state resolution of the legality of the death penalty. One can identify a similar regional pattern on the issue of gun control. A CNN web site\(^1\) provides information for each state on seven aspects of gun regulation: Child Access Prevention Law, Juvenile Possession Law, Juvenile Sale/Transfer Law, Permit to purchase, Registration of firearms, Licensing of owners, and Permit to carry. The following six states have legislation in five or more of these areas: Maine, New York, New Jersey, Michigan, Minnesota, Iowa. All but New Jersey fall in whole or in part within the Northern dialect region, as shown in Figures 10.9 and 10.13.

The overall stance of a state towards abortion may be assessed by many different measures.\(^2\) One is the identification of states where no parental consent for minors is required. These are Massachusetts, Maine, New York and Wisconsin: all states within the North. Another measure is the existence of mandatory waiting periods. No waiting periods are required in the New England and Mid-Atlantic states as a whole, nor in the Mid-West, Illinois or Iowa. This is also true of most Western states and of Florida, so that the correspondence with the North is less precise.

In order to test the association of the North/Midland opposition with ideological positions, an experiment was designed in which subjects heard prototypical extracts of Northern Cities Shift and Midland speech and were asked to infer the speakers’ probable stance for or against abortion, affirmative action and gun control.
11.1 The North/Midland Experiment 1

I first carried out this experiment in April 2000, at the University of Indiana in Bloomington. Extracts from two Telsur speakers were played to a group of ninety undergraduates. The first speaker was Sharon K. from Detroit, 37 years old in 1994, an advanced speaker of the NCS. The underlined words show generalized raising of /æ/, fronting of /o/, lowering of /oh/, and backing of /ʌ/.

(1) The – the way I got hired for this one job was really weird, ’cause I went in for a [...] secretarial position is what I went in for, and they had hired [...] ah – somebody else that didn’t know anything, but it was a buyer’s daughter, so then she got the job. And uh – they called me because I had done shipping and receiving as far as – the paper work, and they had asked me if I’d help out ‘cause their – shipper had just had a heart attack and she wasn’ comin’ back for a while.

The second speaker was Mimi P. from Indianapolis, 45 in 1994, a characteristic speaker of the Midland dialect of that city. The underlined words show tensing of /æ/ before nasals but not in that, back position of /o/, fronting of /ʌ/ and /aw/.

(2) I read, a-n-nd like most women, I like to go shopping and play card games with family and friends and that kind of thing, nothing really exciting. We used to go camping quite a bit on the weekends, but our lives have shifted enough that we don’t do that much right now, but uh that’s what we do.

Figure 11.1 shows the Northern Cities Shift in the vowel system of Sharon K. The six means are connected to show the typical NCS pattern, with /æ/ raised and fronted beyond /e/, /e/ backed to align with the strongly fronted /o/, and /ʌ/ backed into the area of /oh/. Some of the key words from extract (1) are shown: the raised and fronted /æ/ in back; fronted /o/ as characterized by four pronunciations of job, very close to the mean of /e/.

Figure 11.2 shows the same vowels for Mimi P., the speaker of extract (2), with a characteristic Midland pattern. The mean of /æ/ is lower than /e/, which remains in front position, quite distant from /o/. Tokens of /ʌ/ edge forward to front of center and are quite distinct from /oh/ in the back. Some of the key words from extract (2) are shown. The range of /æ/ extends from high front (family) and upper mid front (camping) before nasals to low front (that) elsewhere. Short /o/ in shopping is well back of center, though it is among the most forward in that distribution. In the /ʌ/ distribution, Mimi’s much is in the center.

The student subjects at Bloomington were largely local: fifty-four of the ninety came from Indiana, and only ten from the North (nine from Chicago). Subjects
were asked to assign a city of origin to each speaker, and seventy-four of the ninety attempted to do so. Table 11.1 shows that they were surprisingly accurate: 78 percent of those who responded, correctly assigned the first speaker to the Inland North. These were evenly split between Chicago and Detroit. Since this speaker was in fact from Detroit, both responses are accurate: as we have seen, Chicago and Detroit are equivalent in their development of the Northern Cities Shift. In this sense, Michigan and Cleveland are equally correct responses. Three judges responded with Minnesota, correctly placing the speaker in the larger region of the North. Only twelve out of the seventy-four responses were wrong by placing the first speaker in the Midland or in the South.

There was less certainty concerning the second speaker, though she came from the same area as most of the subjects. Only fifty-four of the ninety tried to place her. Yet those who did so were quite accurate. Only seven made the gross error of assigning her to the Inland North, and twenty-eight accurately assigned her to Indianapolis. The twelve who assigned her to the neighboring Appalachian states erred in the other direction, but there is a solid basis of resemblance between Midland Indianapolis and the South.

Figure 11.1 Northern Cities Shift vowels of Sharon K., 37 [1994], Detroit, TS 176
Figure 11.2  Northern Cities Shift vowels of Mimi P., 45 [2000], Indianapolis, TS 775

Table 11.1  Cities of origin assigned to the two speakers by student listeners at University of Indiana, Bloomington. Bold figures = correct dialect identification. [N = 90]

<table>
<thead>
<tr>
<th>Speaker assigned to</th>
<th>Dialect area</th>
<th>Speaker 1 (Detroit)</th>
<th>Speaker 2 (Indianapolis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicago</td>
<td>Inland North</td>
<td>24</td>
<td>3</td>
</tr>
<tr>
<td>Detroit</td>
<td>Inland North</td>
<td>26</td>
<td>3</td>
</tr>
<tr>
<td>Michigan</td>
<td>Inland North</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Cleveland</td>
<td>Inland North</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Minneapolis</td>
<td>North</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Ft Wayne, So. Bend</td>
<td>Transitional</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Indianapolis</td>
<td>Midland</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>Indiana</td>
<td>Midland</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Other Midland</td>
<td>Midland</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Kentucky, Tennessee</td>
<td>South</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Atlanta</td>
<td>South</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Denver</td>
<td>West</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>71</td>
<td>59</td>
</tr>
</tbody>
</table>
Subjects were asked to evaluate each speaker on a seven-point Likert scale for four personal dimensions:

- **Intelligence**: 1 (moderate) to 7 (high)
- **Friendliness**: 1 (high) to 7 (low)
- **Education**: 1 (high) to 7 (low)
- **Trustworthiness**: 1 (low) to 7 (high)

The rating form continued with three political issues on which North and Midland speakers might be generally differentiated, following the data cited at the beginning of this chapter and in Chapter 10. The scale attributed the lowest number to the most liberal position, and the highest number to the opposition to that liberal position.

- **Abortion views**: 1 (pro-choice) to 7 (pro-life)
- **Affirmative action**: 1 (pro) to 7 (contra)
- **Gun control**: 1 (pro) to 7 (contra)

Subjects were then asked to rate the speaker on whether they sounded like someone “from your hometown.”

No significant differences between the two speakers were found in ratings of intelligence, education or trustworthiness. The Indianapolis speaker was perceived as much more friendly ($t = 6.0$, $p < .0001$). No significant difference was found between the speakers’ probable positions on abortion, but the Inland North speaker was significantly rated higher on support for affirmative action and even more so on gun control, as shown in Table 11.2.

A closer examination of these answers is provided in Figure 11.3. One can see that the largest single tendency is for subjects to give a neutral response at 4. Adding in those subjects who did not respond at all, one can see that the majority did not make any inferences about the speakers’ political position from their dialect. The significant results come from a minority who reacted vigorously: in the case of affirmative action, they attributed strong support to the Detroit speaker, and, in the case of gun control, they projected strong opposition for the Indianapolis speaker.

The same pattern appears in the respondents’ reactions on the abortion question in Figure 11.4. Although the overall results are not significant, the biggest difference

<table>
<thead>
<tr>
<th>Table 11.2 Mean responses on political opinions attributed to Detroit and Indianapolis speakers by University of Indiana subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Northern Cities Shift</strong></td>
</tr>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td>Detroit</td>
</tr>
<tr>
<td>Indianapolis</td>
</tr>
<tr>
<td>Prob [t-test]</td>
</tr>
</tbody>
</table>
between the two speakers was made by the twenty-seven subjects who attributed a strong pro-life position to the Indianapolis speaker (scale 6, 7) – whereas only seventeen attributed this position to the Detroit speaker.

These results are not as strong as those obtained in the subjective reaction tests conducted in New York City for the social evaluation of (r) (Labov 1966), in Harlem for (dh) (Labov 1972), or in Philadelphia for (æh) (PLC, Vol. 2, Ch. 6). They indicate that the majority of our Midland subjects are not sensitive to any social meaning that might be attributed to these radical differences in vowel organization, although there is a minority which does make such inferences. The results hold for the general population of ninety subjects. Regression analyses show no significant
effect of the subjects’ origin or gender. Those who had the same origin as the
speakers were not more inclined than others to say that the speakers sounded as if
they came from their own hometown.

11.1.1 The effect of correct identification of dialect origins

This experiment was not as well controlled as some of the other subjective reaction
tests mentioned, since the content of the two extracts was different in substance.
For example, the mention of “camping” by the second speaker might have triggered
the expectation that that speaker would be against gun control. The voice quality
and speaking style of the two speakers differed. One way of distinguishing these
general effects from the specific effect of the Northern Cities Shift is to examine
the differences in response from those who placed correctly the dialect origins of
the two speakers and those who did not. Any effect of the regional dialect on the
listeners’ attribution of ideological positions should be stronger for those who
correctly identified the regional dialect of the speaker, and weaker for those who
perceived the speaker as coming from some other area.3

Figure 11.5 shows the distribution of differences on the degree of support for
affirmative action attributed to the two speakers. Here positive numbers indicate
that the NCS speaker was given a lower score than the Midland speaker on the
affirmative action item (since the scale was low for support and high for opposition).
The solid bars represent the responses of the fifty-eight judges who correctly
identified the NCS dialect of the speaker from Detroit.4 The white bars represent
the responses of the twenty-eight who did not do so, including those who gave no
response to the dialect identification question. Again, we see that the modal value

![Figure 11.4](image-url)

Figure 11.4 Number of responses, on a 7-point scale, for Detroit and Indianapolis
speakers’ projected position on abortion

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was to perceive no difference, for both groups of listeners. But all those who expected sizeable differences in affirmative action support – 3, 4, 5 units on the scale – correctly identified the NCS speaker.

When we enter the factor of correct identification into a regression analysis, the result of Table 11.3 appears. The stronger the support for affirmative action perceived for the NCS speaker, the greater the difference between the ratings of the two speakers: this is a normal effect. But a significant and equally large effect is the correct identification of the NCS speaker. This gives us some indication that the reactions of judges to the two speakers were a response to the dialect patterns rather than to other characteristics that differentiate them.
11.2 Conclusion

There is no doubt that language change may be local and reflect an immediate social motivation to reinforce local identity. But we have seen that language change in North America occurs on a much larger scale, where individual acts and motivations are irrelevant.

The results of this chapter, whatever their limitations, coincide with the large-scale political and ideological history found in Chapter 10. The correlations between the NCS and ideological factors do not imply an immediate causal relation between ideology and sound change. There are many other indirect relations that may hold between dialect differences and ideology. It is possible that the subjects of the experiment used the phonetic features to identify the urban origins of the speaker, and then drew inferences from a knowledge base that attributes certain qualities and ideological biases to inhabitants of the place in question. Or the speech forms themselves may be associated with these opinions. If that is the case, we have to consider that ideology can affect the development of sound change on a large scale. On the whole, the most convincing and demonstrable determinants of language change are structural and mechanical, but we must be alert to the possibility that ideology is a driving force behind change, as well as a barrier to its further expansion.