RANDOM SAMPLES

edited by CONSTANCE HOLDEN

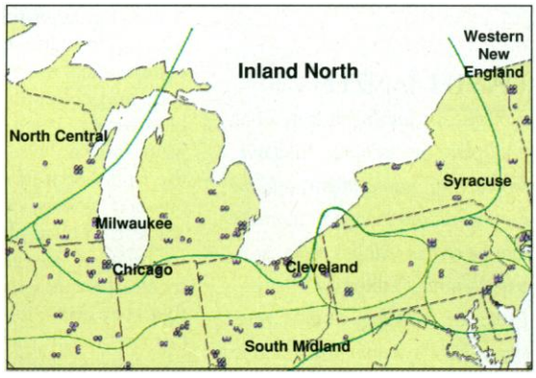
U.S. Dialects Persist by Both Region and Race

Despite the homogenizing influence of the mass media, regional dialects are alive and continue to mutate in the United States, researchers reported last week in Philadelphia at the annual meeting of the AAAS (which publishes *Science*). What's more, experts say, speech patterns of blacks and whites in the United States are becoming more divergent.

Some of the findings come from a newly completed 3-year telephone survey of regional dialects by linguist William Labov of the University of Pennsylvania. Labov analyzed the speech patterns of 240 people throughout the country, comparing them to recordings made in the 1930s of people born in the last century. He found that for people living in big cities of the "inland North"—from Milwaukee, Wisconsin, to Syracuse, New York—vowels in many classes of words have undergone a "rotation" since the 19th century. For instance, the word "sawed" has come to sound like "sod," and "sod" like "sad."

But, said Labov, vowels have shifted only in white, not black, speech. In Philadelphia, where Labov has done in-depth research, whites have altered the "ou" sound so that "doubt" sounds more like "dayawt." But, he said, "you could search for 2 years in Philadelphia [without success] for a black person who has picked this up." Indeed, although black urban vernacular continues to develop grammatical forms—such as the use of "be" in past tense forms (as in "I be sitting")—it retains an "amazingly stable phonology," reported Guy Bailey of the University of Texas, San Antonio. That is, the sounds don't vary much geographically or through time.

One essential thread running through all the latest findings is that speech patterns form very early and are highly resistant to outside influences such as television, Labov said. And that, says John Baugh, professor of linguistics and education at Stanford University, suggests that "it's going to be a lot harder than some think to get everyone speaking standard English."



W. LABOV

Urban vowel shift. Upper line marks boundary of change in northern cities since late 1800s.

A Bad Mix: Radon and Smoking

The latest report from the National Research Council (NRC) on the hazards of radon exposure has more bad news for smokers: If you are living in one of the 6% of homes with high levels of this omnipresent radioactive gas, your chances of getting lung cancer skyrocket.

The NRC panel estimates that radon contributes to about 12% of all lung cancer deaths—or 15,000 to 22,000 a year. Of the victims, almost 90% are smokers. Thus, while reducing radon levels in homes would prevent one-third of the casualties, the committee found, avoiding the deadly combination of smoking and radon would prevent almost all of them.

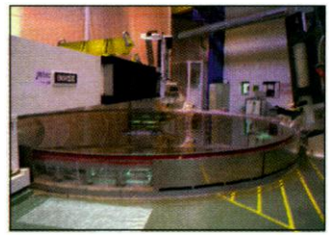
The estimated radon death toll is in line with earlier NRC estimates. "The ballpark is the same, but there's a great deal more certainty," says panel chair Jonathan Samet, an epidemiologist at Johns Hopkins University. "We've increased the amount of information by an order of magnitude."

The committee arrived at its conclusions after analyzing 11 studies of 68,000 miners exposed to radon and eight large studies of residential exposure, as well as laboratory studies. The panel was unable to discern any threshold, or level of exposure, beneath which cancer risk disappears. But if one exists, said Samet, it would be too low to affect the overall numbers.

Some scientists think the NRC has overestimated the total radon toll. "I believe they were carried away by their statistics," says epidemiologist Naomi Harley of New York University Medical Center. The Environmental Protection Agency, which commissioned the report, will continue to amass data on residential exposure before taking any further action.

New NAE Members

The National Academy of Engineering last week elected 84 new members and seven new foreign associates, bumping up the respective rolls to 1941 and 155. Only 2% of NAE's members are women, and this year just two more were elected: Jennie S. Hwang, founder of H-Technologies Group in Cleveland, Ohio, and Mary F. Wheeler, director of the Center for Subsurface Modeling at the University of Texas, Austin. Names of all new members and their contributions to engineering can be found at www.nae.edu.



GEMINI

Final polish. Mirror, made in New York state, on grinding table in Paris.

Australia Joins Gemini Project

Things are looking up for the Gemini telescope project, an international consortium that is building two state-of-the-art optical and infrared instruments in Hawaii and Chile. Last week, the project accepted Australia as a 5% partner, adding its technical expertise and lowering the cost of the $184 million project to current members. And last month, the first 8-meter primary mirror passed its inspection with flying colors, keeping the project on pace to achieve first light in Hawaii by the end of the year.

"It's important for Australian science, not only to keep us at the forefront of research but also for training," says Vicki Sara, chair of the Australian Research Council, which is providing the funding. The project will also exploit the country's work in fiber-optic spectroscopy, says Jeremy Mould, director of the Mount Stromlo observatory.

Australia had hoped to join the team last summer in place of Chile, which had balked at meeting its financial obligations because of a disagreement over its terms as host country (*Science*, 8 August 1997, p. 758). Although those differences were ironed out at the last minute, Gemini's other partners—the United States, Britain, Canada, Argentina, and Brazil—decided to accept Australia's offer, too. The contribution, $9.2 million for construction and $700,000 in annual operating expenses, buys Australia a 5% share of viewing time and a voice in setting research priorities.