DARE's Role in Linguistic Profiling  
Roger W. Shuy

For a couple of decades now, law enforcement agents have found criminal profiling to be a more and more important part of the process of narrowing down suspect lists. This type of profiling takes place after a crime has been committed and is based on past knowledge of what type of person might have committed it. It should be distinguished from the controversial profiling that

Funding Update  
David Simon  
Director of Development

I first spoke to Roger Shuy three years ago. It was a memorable conversation. I knew that Roger was a forensic linguist, but I was not completely sure what that type of work entailed. I was also aware that Roger had great respect for DARE's founder, Professor Frederic G. Cassidy. After our conversation in 1998, I recall being amazed by the details of Roger’s work and also very proud that DARE is an important part of his efforts.

Personally, I find Roger’s work to be fascinating. I know that after reading his article, “DARE’s Role in Linguistic Profiling,” which begins to the left of this column, you will share my interest in this exciting intersection of law enforcement and language.

It is increasingly clear to me that the Dictionary of American Regional English is valuable in ways that could never have been anticipated when the original fieldwork was done between 1965 and 1970. That is another reason why it is crucial that we complete the alphabet and reach the letter Z.

The fall of 2001 has arrived. This is a particularly exciting time for us at DARE. We are working extremely hard to try to finish the editing and proofreading of Volume IV (P–Sk-) of DARE by the end of this year. That will complete more than five years of focused efforts on the fourth volume of the Dictionary. Volume IV is scheduled to be published in late 2002—a thrilling moment for all DARE supporters. The fourth of five volumes needed to complete the alphabet (and Fred Cassidy’s professional
some law enforcement officials use to predict whether or not ethnic or racial identity of a driver on the highway will identify a possible criminal act that is not yet known to have been committed.

It is believed that the idea of psychological profiling originated in the Behavioral Science Laboratory of the FBI, where specialists in psychology and criminology worked together to assess the characteristics that would point to a specific type of perpetrator of a recent crime. Several non-governmental groups now offer their psychological profiling services to private industry after hate mail or threat messages are received. Until recently, however, such profiling has not included the analysis of linguistic clues about the geographical origins, socioeconomic status, race, age, gender, and even occupation of the writers. In short, the resource of knowledge about dialect geography, lexicography, and sociolinguistics has been largely overlooked for this task.

Threat letters and ransom notes can be a rich source of forensic information. The problem is that most law enforcement officers and prosecutors are unfamiliar with linguistic variation in English speech and writing that can give them the most help. Take, for example, the following pencil-scrawled ransom note, left at the doorstep of the parents of an abducted juvenile:

Do you ever want to see your precious little girl again? Put $10,000 cash in a diaper bag. Put it in the green trash can on the devil strip at corner of 18th and Carlson. Don’t bring anybody along. No cops!! Come alone! I’ll be watching you all the time. Anyone with you, deal is off and daughter is dead!!!

It is often the case that writers of such notes try to disguise their language to make it seem as though they are less educated than they really are. In this case, the attempted misspellings suggest that the writer is faking his educational background, trying to make it look as though he has less education than he would like to display. His ability to correctly spell precious, diaper, and watching, along with his use of accepted punctuation throughout, strongly suggest that he has some education. His misspellings of kan, kops, and dautter are not the kinds of misspellings usually made by less-educated people. It appeared that an educated writer was deliberately dumbing down here.
As every DARE reader knows, sometimes it is possible to determine clues to writers’ origins from the expressions they use. In this ransom note the use of devil strip gives away his region of origin. This term, as DARE points out, is indigenous to the area around and including Akron, Ohio. A person from even nearby Cleveland would not be likely to know or use it when referring to the strip of grass between the sidewalk and the curb. When law enforcement’s suspect list contained only one well-educated man from Akron, the police were quick to use these clues to obtain his confession and arrest.

But even a trained dialectologist or sociolinguist can’t be aware of all the variations in our language. In addition to my training and experience, I’ve built a rather good personal library of dictionaries, textbooks, and research studies on American English regional and social variation. Inevitably, however, I have a need for more information than these resources provide. Perhaps more important, the exigencies of the case require me to use a faster way of finding it. DARE often provides this valuable resource on English variation for me to use in helping the police narrow down their list of suspects.

In another case, police investigators found a half-page note near the site of a train bombing in southeast Nevada. The note, signed “Sons of Gestapo,” made references to past government sieges at Waco and Ruby Ridge, suggesting that it was the work of an angry extremist or terrorist who planted the bomb as a way of getting even with society in general.

The only clue in addition to this note was that of a witness who reported seeing a four-wheel-drive vehicle in the area near the bombing at that time. Many local residents were interviewed and all agreed that most of the people in this area were racist, anti-government, or prejudiced, and that almost everyone in that area drove a four-wheel-drive vehicle. Obviously, this clue was not very helpful. The note was the best remaining clue. Eventually, however, law enforcement came up with several possible suspects. They then asked me to provide a linguistic profile of the writer of the note.

Promising nothing, I examined what I considered to be two key expressions found in the note, as follows:

1. “Before dawn the women awoke to say their morning prayers.”

DARE summarizes the extant research on this past-tense verb form. It points out that awoke is common in New York State, rare in the North Midland, and does not occur farther south (summarizing E. Bagby Atwood’s Survey of Verb Forms). DARE also cites Bright’s Word Geography of California and Nevada, where awoke is the least common variant of this form. DARE’s own fieldwork shows that awakened was by far the most commonly used form throughout the country, especially among educated speakers. From this limited information, one might begin to suspect either that the writer was from the Northeast or that he/she was a reasonably well educated person from some other part of the country.

2. “They lit their kerosene lamps because the electricity had been turned off by the FBI.”

And later in the same note:

“This is the normal time needed for a kerosene fire to build up.”

DARE summarizes the distribution of the two variants for this term in the U.S. Coal oil apparently originated in Pennsylvania and is also found in the Midlands area of the country, but is rare in the Southeast and New England. DARE informants used kerosene more in the Southeast and Northeast. From this information, one could suspect that the author of the note could be from either the Northeast or Southeast.

The note contained other sociolinguistic clues as well, suggesting that the writer was Catholic. Stylistic and grammatical clues indicated that he was fairly well educated. He used syntax, vocabulary, and cohesive ties competently. The note contained no linguistic features suggesting that the writer was female, such as hedging, indirectness, or the use of the intensifiers so and such before adjectives with a focus on feelings (i.e., “I’m so happy” and “We had such a good time”), and he narrated in a very professional manner. The note offered no clues that the writer was anything but a rather well educated Caucasian male.

Conclusions based on as little evidence as this note provided must always be offered tentatively. In this case, however, of the several suspects being investigated by law enforcement, only one was an educated Catholic Caucasian male who grew up in the Northeast. These rather meager clues certainly
did not identify the train bomber, but when a law enforcement investigator confronted him with this language evidence, he confessed to the bombing.

The long search for the Unabomber may be illustrative. Without much to go on, the FBI’s psychological profile considered the unknown bomber to be from the East coast, probably a young man who worked at a low-level job in the airline industry (apparently because some of the victims were in that industry). Before the bomber’s Manifesto was printed in the New York Times and Washington Post, the FBI had only the notes and letters accompanying the bombs to use as possible linguistic evidence. Among others, I was asked to give whatever help I could. The following shows how his texts offered clues to his geographical origin, religious background, age, and education level.

The notes and letters accompanying bombs that the Unabomber sent to his victims offered some clues to his origins. In one of his messages, the Unabomber spoke of going out “in the sierras” in the evenings to relax and contemplate. This common noun usage for mountains is not generally used by anyone but Westerners, particularly in northern California, where the Sierra Nevada Mountains exist. The writer did not use sierras as a proper noun. It was his general term for mountain areas, suggesting that he had spent enough time in northern California to have picked up the term. Neither in his bomb messages nor his Manifesto, however, did he use other Western topographical terms, such as ranch, mesa, gulch, or butte, leading to the suspicion that he might have lived in northern California for only part of his life.

In his Manifesto the Unabomber gave evidence of some religious background, frequently using expressions such as unclean thoughts, cradle to the grave, personal demon, and God’s will, and talking about sin many times. He tells a parable of a weak neighbor and a strong neighbor, using near-Biblical language: “If he lets the strong man survive and only forces him to give the land back, he is a fool, because when the strong man gets it back, he will take again all the land for himself.” The Manifesto goes on with arguments against birth control, for the corporal punishment of children, and for the need to “sublimate” sex urges (and other ideas that are consistent with a religious upbringing, possibly Catholic).

The Manifesto gave many clues that the Unabomber was older than he was originally thought. One interesting clue was his misspellings of certain words in a fashion that was consistent with spellings used in the Chicago Tribune during the forties and fifties, at the time when its publisher, Colonel McCormick, insisted that his personal views of spelling reform be used in his newspaper. It is possible, if not likely, that a literate and intelligent Chicago-area schoolboy might well have adopted some of these spellings as his own. My guess was that the Unabomber grew up under the influence of the Chicago Tribune, a belief that was eventually proven accurate.

If the Unabomber’s formative years were during the time of the Tribune’s unique spelling system (which soon faded), he would have been about fifty years old at the time the bomb messages were written. This fact was also verified after Kaczynski was captured. In his Manifesto he also used expressions that a person who grew up in the sixties might have used, such as Holy Robots, working stiff, and playing footsy. His gender references indicated that he was either unaware of, or resistant to, the gender-inclusive references expected of today’s writers, especially younger ones. His use of sociological terms, such as other directed, and his many references to individual drives suggested an acquaintance with the sociology in vogue during the sixties, particularly that of David Reisman.

The early beliefs about the education level of the Unabomber were that he was probably a relatively uneducated laborer. Yet the notes and letters he sent in connection with his mail bombs, as well as his following Manifesto, gave strong indication that he was a more highly educated person. He used somewhat learned vocabulary, including words such as surrogate, over specialization, and tautology. His grammar was often complex, sometimes including subjunctives. His style was rather lucid most of the time. Whatever one might think of his rather radical ideas, one would have to agree that his organization was usually logical and that he had apparently read enough about such fields as history, archaeology, and comparative linguistics to feel that he could discount most of the contributions these fields could make to the human race.

On the other hand, his references were often quite dated, his punctuation and spelling were spotty, and he shifted back and forth from the scholarly to the casual register in less than a scholarly way. He was clearly an educated man who needed help with editing to succeed in academic writing. His style would not pass muster in the humanities or social sciences, but might, with help,
get by in some hard sciences. He took a dim view of college professors, whom he called “university intellectuals,” noting in one bomb letter, “people with advanced degrees aren’t as smart as they think they are.” His writings indicated that if Kaczynski was himself a college professor, he certainly did not like his peers or think very highly of the entire profession. The fact that his Manifesto had so few references suggested that he was no longer connected with the university life or that he had little access to university libraries. After his capture, these clues to his education were confirmed.

As it turned out, he was very well educated, and at one time he had been a university professor, albeit a disgruntled one who didn’t think his colleagues were “as smart as they think they are.” In all fairness, it should be pointed out that the clues offered in this linguistic profile were not responsible for his capture. It was the courageous exposure by his own brother that did this.

It is said that some 99% of American English is used in pretty much the same way. If this is true, only about 1% contains the variability that can be used to identify us as different from each other. Forensic linguists use this 1% to assist law enforcement agencies and private corporations in uncovering people who threaten or carry out illegal acts, commonly through linguistic profiling. As has been pointed out, however, such work is used only for narrowing down suspect lists for the crucial follow-up work carried out by investigators. DARE is a tremendous aid to such work, both with its syntheses of past research findings and in the data-gathering over the years by DARE fieldworkers. It will be of even more service to forensic linguistics once the final two volumes are completed.♦

Note: Some names and places in the above-cited cases have been changed for reasons required by confidentiality.

Roger W. Shuy is Distinguished Research Professor of Linguistics, Emeritus, from Georgetown University. He now lives in Missoula, Montana.

Notes and Quotes

Here are a few selections from our recent correspondence file. We always enjoy hearing from you.

“My mother used the term ‘skee-jawed’ to mean out of whack, out of plumb. . . . A picture might be crooked on the wall, but if the frame was wonky (Britishism) to begin with, it was skee-jawed. Has anyone else reported this usage? [DARE Ed: Yes, Robert, it will be in Volume IV.] DARE is a wonderful thing, by the way.”

Robert Barrett
Santa Monica, California

“I can’t tell you how much I appreciate your speedy and helpful answer to the ‘squaw question’ [i.e., the use of squaw in place names]. I did check the A[merican] D[ialect] S[society] archives and found exactly what I was looking for . . . So you’ve helped to further the cause of truth and justice.”

Jane Houston
Idaho State Library

“Thanks for your e-mail, and I’m thrilled to be of assistance [with regard to the use of shitepoke as an affectionate term for a child]. The earlier volumes of DARE are frequent reading for me and several other interested amateurs I know. Good luck!”

Steve Hicks
E-mail correspondent

“Having enjoyed DARE vols. 1–3, I’m only too pleased to send in something that might be helpful in pinning down this entry [=sky blue as a name for hopscotch]. . . . My volumes of DARE did not come easy: I bought them at various branches of Borders in the Washington, D.C. area and had to bring them home in my luggage—excess baggage, how are you!”

Jeffrey Kallen
Trinity College, Dublin, Ireland

“Thank you very much [for verifying the widespread occurrence of a whole nother]. DARE was my absolute favorite reference book when I was in Library School. I could browse through it for hours. I think I’m the only person in my class who loved ‘Research and Reference.’ ”

Debra Beck
E-mail correspondent
Funding Update

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dream) will be on bookshelves around the United States and beyond.

I hope you will continue to support our efforts. Your financial gifts are crucial to the continuation of our work. Since each contribution is matched on a one-to-one basis by the National Endowment for the Humanities, your gifts are doubly valuable to us. Each one is greatly appreciated.

You can support the Dictionary in a number of different ways. To make a cash gift to DARE, checks should be made out to DARE/UW Foundation and mailed to DARE, c/o University of Wisconsin Foundation, 1848 University Avenue, P.O. Box 8860, Madison, WI, Attn: David Simon.

The form that you can use to charge a gift is below. Please contact me at (608) 263-5607 or at david.simon@uwfoundation.wisc.edu if you would like to make a gift of stock or a deferred gift.

Thank you for being a part of this exciting DARE effort. On to Z!

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Staff Member Profile

In this continuing series, David Simon interviews Conrad Treff, DARE’s Project Assistant. Conrad is a Doctoral student in the Linguistics Department.

Q: What are your responsibilities as a Project Assistant at the Dictionary of American Regional English?

A: One part of an entry for a word in the Dictionary is a collection of quotations showing at once how the word is used and where it is used. As a Project Assistant, I check the accuracy of those quotes that come from sources other than our own fieldwork. With thousands of quotations that need to be verified, I’ve become rather well acquainted with the 45 libraries on the UW campus.

Q: What is the most challenging part of your job?

A: As you can imagine, we have many different sources for quotes, including government documents (“gov docs” to us). These sources, particularly the ones from the nineteenth century, can be very difficult to work with. A specific passage in a “gov doc” can appear in multiple sources: it might be published independently in a Senate document series, a House of Representatives document series, a Department series, and then also published privately for profit, as was done with some of the early accounts of exploration in the West. Because our government has always published so much information, quotes in “gov docs” can also be hard to locate if references to them aren’t entirely accurate or complete.

Q: Tell me about your most satisfying research experience at the Dictionary.

A: Finding a quote for Yankee older than the one in the OED. We found it in a monograph published

Conrad Treff, Project Assistant
Another DARE Quiz

Many of you liked the challenge of the quiz we published in the Summer 1999 DARE Newsletter, so we’ve pulled together another one. Can you match up the headwords on the left with the definitions on the right? (Hint: These have all been featured in previous issues of the Newsletter.)

1. paddybass ___ a. A spring peeper
2. peep-eye ___ b. A woodpecker
3. pinkwink ___ c. A wind bringing hot, dry air to southern California
4. pogonip ___ d. An attic
5. puckersnatch ___ e. To walk back and forth
6. punkie ___ f. A team hiding or chasing game
7. quill ___ g. A scrap, small piece
8. ragged robin ___ h. Conceited, pretentious
9. ring-a-levio ___ i. The game of peekaboo
10. ruddle ___ j. A heavy fog or frost in the mountains
11. rutchie ___ k. A farewell-to-spring, a cornflower, or still another flower
12. sac-a-lait ___ l. A children’s game played with weighted bottle caps
13. Santa Ana ___ m. A drinking straw
14. schnibble ___ n. A sledding hill
15. scythe-whetter ___ o. A difficult or muddled situation
16. siddity ___ p. A white crappie
17. skelly ___ q. A biting insect

(Answers are at the bottom of page 8.)
Voices of America

DARE’s web site (http://polyglot.lss.wisc.edu/dare/dare.html) now has a new feature. We’ve added a composite reading of “Arthur the Rat” (the story devised to elicit all the crucial pronunciation features of American English), by nine of our original DARE Informants. They come from New York City, Maine, Massachusetts, Tennessee, Virginia, Georgia, Texas, Washington, and Wisconsin, so you can imagine the variety in their speech! If you have audio capability for Internet sites, you’ll enjoy hearing these samples of American English as you read the text of the story.

Answers to the Quiz

a–3; b–15; c–13; d–10; e–1; f–9; g–14; h–16; i–2; j–4; k–8; l–17; m–7; n–11; o–5; p–12; q–6.

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