An Appetite for Research

Sandy Carter

A door on the fourth floor of Straub Hall has a sign stating, "Knock, then wait." Inside are four cubbyhole rooms, institutional gray, sound-proofed, and temperature-controlled. They house some of the year-round psychology experiments conducted by UO Associate Professor Sheldon Cohen and his students.

For an internationally recognized authority on noise and stress, the 34-year-old Cohen is himself quiet and unpretentious. As he pads about Straub Hall in tennis shoes and a turtleneck, he might be mistaken for one of his graduate students, many of whom call him by his first name.

In one of the Straub rooms, a nervous subject has her arm in a cold, stainless-steel-and-canvas cuff, used to measure her blood pressure. She tries not to worry about the researcher's stopwatch, ticking off the time she spends on seemingly simple puzzles. The puzzles and nervous subjects are part of the doctoral research of Shirlynn Spacapan, Cohen's assistant and companion into many of the scientific forays he has launched since 1974. She works both on her project, examining how expectations of stress relate to actual experiences of it, and on a related grant-funded project of Cohen's.

Cohen has a reputation among UO psychology students for both his cor-

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UO psychologist Sheldon Cohen.
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duality and the seriousness with which he takes his work. He provides a good model to learn from, according to Spacapan. He is often demanding, pushing her to do her best in ways that "you don't even know you're being pushed." She also says he is an understanding and supportive colleague. "I've worked with the man for seven years," says Spacapan. "He's my mentor—what can I say? He's very intellectually stimulating."

In another room, the same subject, still apprehensive, signs a consent form and then holds her hand in a metal pan of ice cubes, squirming as the cold bites to the bone, numbing the hand. The omnipresent stopwatch hovers nearby in the hands of an impassive student technician. Research continues.

Downstairs, Cohen’s third-floor office, filled with academic clutter, is a monument to his drive and nonchalance about appearance. There is litter everywhere: papers lean precariously in stacks, overflowing filing cabinets and burrying his desk. Books poke out of crowded shelves. More are piled on the floor. Near the wall is a box full of men’s wallets—props from a street experiment done during his graduate years at NYU.

Memories of those think-on-your feet, face-to-face field experiments still trigger feelings of excitement and satisfaction in Cohen. He has come a long way in nine years, from the bustle of graduate work in the East to a more cloistered existence here. While he still receives acclaim for his past studies, Cohen’s excitement these days comes in the form of countless new ideas for research, the give-and-take of his graduate seminars, and the satisfaction of more than a quarter-million dollars in grants gained for the University.

His two most famous studies—on the effects of noise on learning in children—took place far away from Eugene, in large, metropolitan areas (New York and Los Angeles). They illustrate an emerging pattern in Cohen’s work. Research interest spurs one study, which is given careful interpretation. A slight shift in perspective, and he launches another, related study. On and on.

In the New York study, Cohen tested the auditory and verbal skills of children living in four separate 32-story apartment buildings built over busy expressways. Study of 54 children confirmed that those living on the lower floors, nearer the noise of heavily traveled expressways for a longer time, tended to become overloaded, saturated with noise.

To adapt to their environment, Cohen’s research showed, the children tuned out many learning cues along with the din. When tested, for example, they showed impaired ability to read and pronounce words, compared to their playmates on upper floors.

The Los Angeles study in 1977 began as the result of a lawsuit filed by a local school system against Los Angeles International Airport. As part of the out-of-court settlement, L.A. International paid for noise-abating modifications in the four noisiest schools under the runway approaches. Before and after the sound-proofing took place, Cohen and three colleagues tested students at the schools.

Compared to students in three quiet schools, those in the air corridors had higher blood pressure, poorer performance, and a greater tendency to give up—a phenomenon known as “learned helplessness.” When they were tested a year later, the children showed the same effects—a sobering lack of adaptation to their noisy environment.

The children had been carefully matched in terms of racial and socio-economic backgrounds, parent education, and income factors so that they comprised very similar groups, which, Cohen says, “gave us more confidence that the differences discovered were related to noise factors.”

Cohen’s studies have since provided a solid case for dealing with the impact of noise on behavior, learning, and general health. Although the long-term effects of noise-related stress on children are still being documented, the impact of stress on adults already has been. Hypertension, heart disease, and other problems are not necessarily the fate of these children, Cohen says, but the overload of noise isn’t doing any of them any good, either.
Although Cohen's Los Angeles study came after the school district was already committed to noise abatement—which was carried out over the next three years—other communities throughout the country have taken advantage of his research.

"The data have been used in a number of suits since then," says Cohen. "I constantly get letters and calls from people who are community leaders or lawyers interested in information about the effects of noise."

Controversies of this kind typically center around the construction or enlargement of airports, and Cohen's research findings have been requested in cities as diverse as Dallas, Seattle, Charleston, and Atlanta. In one city, it was the airport that actually requested the information. And, in a related development, a California Supreme Court decision in 1980 affirmed that damage to life-style and other stressful psychological effects can result from excessive noise, establishing a legal precedent for subsequent noise-modification suits.

But the same recognition that keeps Cohen's phone ringing also complicates his life, a tie to the past even as his work takes new directions.

"Noise research is the work people know me for," Cohen concedes, "but my interests are evolving." While in the noise studies, Cohen looked at how the physical environment affected human behavior, he's now concerned with what he calls the "psycho-social environment" as it relates to behavior and health.

In his current project, Cohen is looking at the health and behavior of incoming freshmen at the UO who live in the student residence halls. With the help of Carl Schwartz, administrator of the UO Student Health Center, he is studying how often students use the center and what types of problems they report. The project is ideal for him, says Cohen, because of the thorough records kept by the center on all phases of its operation.

"Coming to a university this size is in itself a potential source of stress," Cohen says. "And, for some students, Eugene is a very big place. We are examining past changes in the students' lives and trying to develop some concrete evidence about how they are adjusting to the demands of living in a new place, meeting academic responsibilities, coping with new personal relationships, and so forth."

While he is hesitant about "prejudicing his data" by saying too much about the study, which is still in its early stages, Cohen admits one of the results he hopes to achieve is "a way of predicting early in a student's career whether he is—" and he will stay in college.”

As another way of studying the "effects of the psycho-social environment," he and colleague Ed Lichtenstein have recently completed writing a grant on the "buffer hypotheses" and smoking cessation. Together, they would like to study the stress of quitting smoking in people with weak and strong social support networks. If the grant is approved, it will be Cohen's fifth major grant since he's been at the University. Funding is central to his work, and Cohen spends a good deal of time, during and after the research, writing proposals for the next project.

"Traditionally, there have been fairly obvious places to go for research funding," he says. "The National Science Foundation (which has awarded Cohen three other stress research grants) is the best and quickest, but the Reagan administration has cut back drastically on funding of social science research and redefined much of what I do out of the 'acceptable' category."

For social science researchers—even potential researchers—things are tough all over, making Cohen's own success even more significant.

"There is very little going on in the field of environmental psychology—it grew at the wrong time," Cohen says candidly. In spite of his own dedication and involvement in his field, he advises students not to follow his example.

"I don't encourage them to go on to graduate school in environmental or social psychology—there are too few job opportunities," he says.

Things were better, more encouraging, for those entering the field in the late sixties, when Cohen first cracked his graduate books. His work at Montieth College in Wayne State University (where his senior
No noise reduces your ability to be social, Cohen’s research suggests.

thesis was a proposal for “a reinforcement program to eliminate disruptive classroom behavior”), the University of Michigan (where he did the research for the thesis), and New York University (where he was a research apprentice, teaching assistant, and instructor) impressed his future colleagues at the University of Oregon.

In 1973, with an impressive history of teaching and research, Cohen came job-hunting. UO psychology department head Robyn Dawes remembers how Cohen’s past research and ideas for future projects, his affiliations with well-known professionals, and his general potential impressed the department’s faculty.

“We were really excited about his work,” says Dawes. “He has more than lived up to his promise since then.”

Cohen turned down job offers from industry—reflecting a stubborn, independent streak that has stood him in good stead over the last seven years.

“I could have gone to work for GM, but you do what you’re interested in,” Cohen says. “The difference is having someone who tells you what to do. Here, I can work on anything I please.”

And, apparently, it pleases Cohen to be extremely busy. Currently, he is working on chapters for several books, theoretical papers, and the analysis of data from several research projects (including Spacapan’s) funded under his present grant.

“I don’t usually write several things at once,” he says, “but I have trouble saying ‘no’ to book chapters. In journal writing, you have editorial boards to contend with. With an invited book chapter, you can develop unconventional ideas with an assurance that they will be published.”

Cohen has had two articles published in a more popular medium, Psychology Today, which undoubtedly gave broader publicity to his research findings. The latest PT article, “Sound Effects of Behavior,” included a digest of the recent noise literature and a discussion of the concept that noise, like beauty, is in the eye of the beholder.

Recent research, Cohen says, indicates that intrusive, annoying sounds may reduce a neighborly tendency to help other people, or to be sociable, or to be sensitive to their needs.

Your own dog may bark unnoticed by you, but your neighbor’s must drives you crazy, he says. Country-western music, full volume, can keep you awake all night, but Mozart at the same volume will be just fine. It’s the whisper that’s barely audible in one situation, he says, that may be totally obnoxious—and therefore noisy—next to you in a theater during a suspenseful scene in a movie.

The teaching portion of Cohen’s life in Eugene is another demand on an already taxed and taxing schedule.

“I generally like what I do, but I’d like it more if I taught a little less,” he says. “I can easily spend 12 to 14 hours a day when I’m involved in research.”

Cohen says, and teaching competes with this time. Of all his classes, his least favorite to teach are the large survey sections, where it’s difficult to provide individual attention.

Two goals for his undergraduate classes are to “show students how psychologists do research and to make them critical of what they read,” he says. “I’m less concerned with specific topics than with teaching them what science is like and giving them some ability to evaluate critically.”

Not surprisingly, he would prefer teaching only the upper-class and graduate-level courses.

“At least in a class of 40, you can attach the paper you’re grading to a face,” Cohen says. And, he says, the graduate-level students help maintain a level of excitement in his professional life, often returning ideas for the information he gives them in his lectures.

“It’s very conducive to research,” he says. “A grad seminar often yields stimulating ideas. A number of times, seminar discussions have sent me off in some new directions.”

Many of those directions, these days, are actually pursued by his “foot soldiers,” grad students in the neutral gray rooms, armed with blood-pressure cuffs and stopwatches. These days, Cohen has put aside his stopwatch. His part of the work is sometimes administrative, other times analytical, writing up and submitting the grant proposals for funds that make the whole thing go. It is an ironically gray-flannel kind of job for a man whose personality and bearing are far removed from such things. But in his small third-floor office, amid deep stacks of computer printouts, books, papers, and the endless search for data to confirm his theories, Cohen’s typewriter gathers no dust.