

medication (SN: 2/20/88, p. 122.)

Randall says he's still smoking marijuana legally, but in the intervening years he unwittingly embarked on a scientific study of sorts.

In 1994, Randall was diagnosed with late-stage AIDS. For a year, because his health was deteriorating, he stopped smoking marijuana. "From April of '95 to '96, I didn't use marijuana, and in that period of time I lost more eyesight than I had in the previous 20 years," he recently told *SCIENCE NEWS*.

Randall's weight also slipped during that period, from a healthy 170 pounds to 125. In April 1996, his doctors put him on the new antiviral drugs called protease inhibitors. Many HIV-infected people can't tolerate these drugs because they cause extreme nausea. Randall turned back to marijuana.

He now weighs 180 pounds, and his eyesight has stabilized. He credits marijuana for the improvement.

"There's experience out there," Beaver says. "But it is difficult to figure out how you can tap this in any meaningful way." For example, Randall's story, no matter how compelling, remains far from a scientific study.

Drug companies can't patent marijuana, so there's no incentive for them to

conduct such trials, says Lester Grinspoon of the Harvard Medical School in Boston. He and other researchers have called on NIH to support such trials. However, they point out, a single institute has quashed marijuana trials in the past.

"The National Institute on Drug Abuse—the only legal source of marijuana for research—has been blocking clinical trials by refusing to provide marijuana to FDA-approved studies," says the Washington, D.C.-based Marijuana Policy Project.

Two letters published in the Sept. 7, 1995 *NEW ENGLAND JOURNAL OF MEDICINE* support that contention. In one, Grinspoon and his colleagues said that NIDA derailed an FDA-approved trial of marijuana proposed by Donald I. Abrams of the University of California, San Francisco.

The proposal was the first in more than 10 years to include marijuana in its design. In a second letter, Abrams and his colleagues expanded on Grinspoon's letter, saying that they had worked extensively with FDA staff to design their study. After getting FDA approval, NIDA spent 9 months reviewing the proposal, a period during which Abrams got no feedback from NIDA or the DEA, which also opposed the project.

In April 1995, NIDA abruptly rejected

the proposal.

Such reports have created a chilling effect, at least when it comes to marijuana research. Government opposition has made it "impossible to do those kinds of studies," Consroe says flatly. Indeed, he says, most scientists simply won't submit a marijuana research proposal, even though it may be scientifically sound.

"It's like jumping off the Brooklyn Bridge," he says. "You know what's going to happen."

Will the panel's report help change NIH's attitude toward marijuana research? It's anyone's guess right now. The panel had a very limited mission: to review the existing data on medicinal marijuana. The group was also charged with identifying areas that might merit further study. It remains to be seen whether NIH will use the panel's report to justify funding clinical trials of marijuana.

Meanwhile, Abrams says, thousands of AIDS patients in the San Francisco area alone are already using marijuana—without any assurance of its safety or efficacy.

The last speaker at the NIH meeting, FDA's Robert Temple, alluded to the difficulties in resolving this issue. Noting that passions on both sides of the debate are running extraordinarily high, he warns: "This isn't going to be easy." □

## Behavior

### Hunches pack decisive punches

You gotta know when to hold 'em, know when to fold 'em—but keep in mind that an ounce of intuition trumps a pound of pondering, hands down.

That's the implication of a new study in which people tried to make money, or at least not lose their shirts, by discerning whether four decks of cards were stacked for or against them. Insightful players rapidly accumulated unconscious knowledge about the riskiness of selecting cards from each deck, based on mental updates of their picks' monetary values, neuroscientists report in the Feb. 28 *SCIENCE*. That information was then applied intuitively to improve their choices.

Good judgment relies on the brain's unobtrusive records of prior events in uncertain situations, from the poker table to the board room, contend Antonio R. Damasio of the University of Iowa College of Medicine in Iowa City and his coworkers. Conscious reasoning often arises as an afterthought to intuitive knowledge and the bodily reactions it evokes, such as sweaty palms or flushed skin, the scientists theorize.

They studied six patients who had suffered a kind of frontal-brain damage that spares general intelligence and memory but causes social and decision-making problems (SN: 5/21/94, p. 326). Ten people with intact brains served as controls.

Participants received a stash of phony money and four decks of cards placed facedown. They then turned over 100 cards from the tops of the decks in an attempt to find cards that netted cash rewards and to avoid cards that carried cash penalties. Picking cards mostly from two of the decks would result in an overall loss, and selecting mostly from the other two would yield an overall gain.

Questioning of the players after their first 20 selections and then after every 10 picks revealed that the controls began to favor the money-making decks well before they could articu-

late a strategy for choosing cards. In contrast, the six patients continued to select a large number of cards from the losing decks, even after they had figured out the most financially promising strategy.

Lowered skin resistance to a mild electric current—a bodily sign of anxiety—occurred in controls as they pondered choosing cards from the riskier decks, even before they were consciously aware of which decks to avoid. Patients showed no such anxious undercurrents, either before or after identifying the riskier decks, possibly reflecting their inability to form or exploit an intuitive perspective on the task. —*B.B.*

### Prospects for beating bulimia

People suffering from bulimia nervosa, most of them women, usually try to hide their repeated bouts of binge eating and purging. So it comes as no surprise that scientists know little about the long-term prospects for recovery, either on one's own or after various types of treatment with psychoactive drugs and psychotherapy.

A statistical synthesis of existing data on this topic, published in the March *AMERICAN JOURNAL OF PSYCHIATRY*, suggests that about half of the women initially diagnosed with bulimia shed their symptoms completely after 5 to 10 years, whether they get treatment or not. Another 20 percent of the women still display the disorder, while the rest exhibit problems with bingeing and purging that fall short of a formal diagnosis of bulimia.

Bulimia treatments may speed the recovery of women who would stop bingeing and purging on their own after 5 to 10 years, suggest Pamela K. Keel and James E. Mitchell of the University of Minnesota in Minneapolis. Nonetheless, in the first 4 years after an initial diagnosis, about one-third of those who recover experience a relapse, the researchers report.

The analysis combined 88 studies that tracked a total of 2,194 bulimic women for 6 months to 10 years. —*B.B.*