Wordless Memories

Psychologists have puzzled for centuries over the reason for so-called childhood amnesia, the inability to remember early events. Researchers now provide evidence that language is the key: Children can only describe memories using words they knew at the time those memories were stored.

Developmental psychologists Gabrielle Simcock and Harlene Hayne of the University of Otago, New Zealand, exposed children to a unique event at a time when they could barely talk. They visited the homes of 2- to 3-year-old toddlers, bringing with them a "magic shrinking machine"—a large box with handles and knobs that made quirky sounds. Children were shown how to manipulate it to make a toy disappear, then to retrieve a smaller identical toy from it. On the same visit, Hayne and Simcock carefully tested the toddlers' vocabulary.

Trick box tests tots' recall.

A year later, the psychologists came back. The tots readily remembered how to work the box when they saw it again. But before that, the researchers asked the children to describe the game. Even though they now had greatly expanded vocabularies, the children described the box only with words they had a year earlier, the researchers report in the May *Psychological Science*. "Their verbal descriptions of the event were frozen in time," says Hayne.

"The study demonstrates that you can't reach back to the nonverbally coded memories and describe them with words," says psychologist Andrew Meltzoff of the University of Washington, Seattle. "It also predicts that you remember more from your early age the earlier you acquire language."

Just Between a Giraffe and His Doctor

Officials at Washington, D.C.'s National Zoo declined to release medical records of a dead giraffe to *The Washington Post*—citing the animal's right to privacy.

In an e-mail to their reporter, the *Post* reported on 6 May, zoo director Lucy Spelman explained that "the core of veterinary medicine is the client-patient relationship." Rules for humans "do not apply in precisely the same way to animal medicine. ... But we believe they do in principle."

The zoo's reasoning has drawn hoots from legal experts and animal-rights activists alike. "As a matter of law, animals are property, and as such they can't have any rights," says Gary Francione of Rutgers School of Law in Newark, New Jersey.

Zoo spokesperson Robert Hoage says the reporter was allowed to interview the pathologist and was given parts of the giraffe's pathology report. But the medical record in its entirety is not geared for public consumption, he explains. Experts scoff at that too. Paul McMasters of the Freedom Forum in Arlington, Virginia, says that by filtering the information through spokespeople, the zoo is thwarting access to records.

S&T Medalists

President George W. Bush last week announced winners of the 2001 National Medals of Science and National Medals of Technology.

Science laureates

Social Sciences: George F. Bass, Texas A&M University

Biological Sciences: Francisco J. Ayala, UC Irvine; Mario R. Capecchi, Univ. of Utah; Ann M. Graybiel, MIT; Gene E. Likens, Institute of Ecosystem Studies; Victor A. McKusick, Johns Hopkins Univ.; Harold Varmus, Memorial Sloan-Kettering Cancer Center

Chemistry: Ernest R. Davidson, Indiana Univ.; Gabor A. Somorjai, UC Berkeley

Engineering: Andreas Acrivos, City College, CUNY

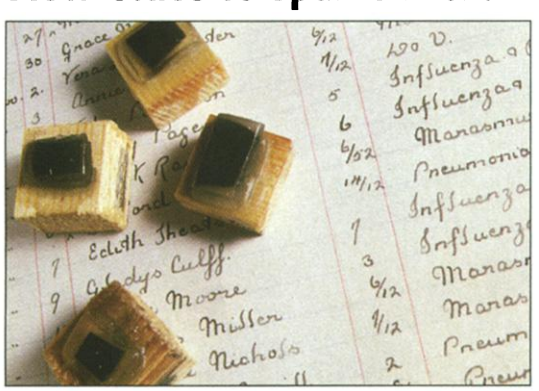
Math: Calyampudi R. Rao, Penn State and Pittsburgh; Elias M. Stein, Princeton Univ.

Physical Sciences: Marvin L. Cohen, UC Berkeley; Raymond Davis Jr., Univ. of Pennsylvania; Charles D. Keeling, Scripps Institution of Oceanography

Technology laureates

John A. Ewen, Catalyst Research Corp.; Arun N. Netravali, Lucent Technologies; Sidney Pestka, Robert Wood Johnson Medical School; Jerry M. Woodall, Yale Univ.; The Dow Chemical Company.

New Clues to Spanish Flu?



Cubes holding lung tissue along with list of young London flu victims.

The lungs of a young London woman who died from the "Spanish" influenza of 1918 may hold the key to understanding the worst flu pandemic in modern history. Scientists believe that the body of 20-year-old Phyllis Burn, one of up to 40 million victims of the scourge, may be well enough preserved to yield cells that will reveal the nature of the virus.

Tissue samples containing intact viral RNA are rare. So far researchers have recovered only pieces of lung tissue. Scientists have sampled about half of the viral genome but have so far found nothing unusual. Now, virologist John Oxford of St. Mary's Hospital in London and colleagues are hoping to retrieve a whole lung from Burn, one of 400 flu victims buried in a cemetery in South London. Oxford believes her remains are the best of 10 bodies preserved in alcohol-filled lead coffins. The availability of a whole lung is "the opportunity we've been looking for," says Oxford.

George Brownlee, a pathologist at Oxford University, warns that the story still won't be complete until researchers have investigated earlier strains of the 1918 flu as well as samples from other countries. Meanwhile, Oxford—who is currently waiting for permission to exhume the body—says there are many more cemeteries in London whose denizens may also yield grisly secrets about the 1918 scourge.