

SCIENCE NEWS®

A Science Service Publication
Vol. 111/May 7, 1977/No. 19

OF THE WEEK

Senility treatment	292
Lead levels and sight	292
NAS caution on gene rules	293
CT scanner misused	293
Academy on human rights	293
Estrogen-cancer link questioned	294
Deciphering human genes	294
Science in China	295

RESEARCH NOTES

Biomedicine	296
Behavior	299
Physical Sciences	299

ARTICLES

Smoking: Psychobiological cues	297
Computerized moon maps	300

COVER: The mountain of scientific data about earth's moon has grown so large that it has become extremely difficult to make comparisons between one kind of measurement and another, particularly on a global scale. A new tool promises to bring order out of chaos. It enables data as diverse as elevations and radioactivity, or crater counts and gravitation, to be compared in identical formats with virtually no loss in accuracy. Generated by a computer, the cover illustration, for example, shows color and albedo variations acquired with a multispectral scanner at Lowell Observatory. Three variables have been combined: a blue component representing the ratio of 0.40-micron and 0.56-micron brightness; a green, "pure albedo" component at 0.56 microns alone, and a red component representing the 0.80-to-0.56-micron ratio. The maria appear as dark colors such as violet, blue and red, while the lunar highlands show as bright colors such as green and yellow. The data (from L. Soderblom et al.) cover an area $\pm 90^\circ$ in longitude and $\pm 50^\circ$ in latitude. See p. 380. (Computer image: L. Soderblom and E. Eliason, U.S. Geological Survey, Flagstaff)

Publisher	E. G. Sherburne Jr.
Editor	Kendrick Frazier
Senior Editor and Physical Sciences	Dietrick E. Thomsen
Behavioral Sciences	Joel Greenberg
Biomedical Sciences	Joan Arehart-Treichel
Life Sciences	Julie Ann Miller
Science and Society	John H. Douglas
Space Sciences	Jonathan Eberhart
Copy Editor	Michelle Galler Riegel
Art Director	Dale Appleman
Assistant to the Editor	Evelyn Harris
Business Manager	Donald Harless
Advertising	Scherago Associates, Inc. 11 W. 42nd St., New York, N.Y. 10036

Copyright © 1977 by Science Service, Inc., 1719 N St., N.W., Washington, D.C. 20036. Republication of any portion of SCIENCE NEWS is prohibited.

Editorial and Business Offices
1719 N Street, N.W.
Washington, D.C. 20036

Subscription Department
231 West Center Street
Marion, Ohio 43302

Subscription rate: 1 yr., \$12.50; 2 yrs., \$22; 3 yrs., \$30. (Add \$2 a year for Canada and Mexico, \$3 for all other countries.) Second class postage paid at Washington, D.C. Published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington, D.C. 20036. (202-785-2255) TWX 710-822-9433 SCIEN NEWS.

LETTERS

Scientific psychology

The work being done by Robert Stoller on sexual identity (SN: 4/9/77, p. 236) is exactly the kind of psychological research that is needed. Because of the close attention he pays to the data obtained from his human subjects, his theories can justly be called "scientific" in the tradition of the great physicists. This is in contrast with the speculative nature of the theories of Freud's school, which have shown their ineffectuality in practice.

Stoller's approach to studying the most compact complexity in creation (man) is courageously direct. He has shown that scientific psychology needn't be based on data from experiments in which humans are depicted as overgrown rats—with no more complexity or dignity than rats. No one can deny the firm statistical basis for the theories of the behaviorists—only their relevance to human problems. Stoller's work has already proven its effectiveness in dealing with the kind of human problems that practicing psychologists are faced with. This is evidenced by the little boy who Stoller defeminized.

In short, Bravo, Stoller! I hope that the spirit of your work becomes more widespread in psychology.

David L. Keller
Providence, R.I.

It was a little disappointing to find the article "The Transsexual Riddle: An Hypothesis" in your otherwise excellent science magazine.

The article was lacking in objective fact, instead relying on the impressions of wishful psychiatrists and vague subjective concepts like femininity and masculinity.

Where is the science in all this and how could enough objective data ever be found to be able to advance this hypothesis to a theory?

Better yet, how does a one-year-old infant "drink in" his mother's femininity to later become a transsexual?

You should have published this piece in your April 1 issue, had there been one.

Gary J. Cook
Portland, Ore.

As a sex educator, I very much appreciated the review of Robert J. Stoller's research into transsexual behavior.

Since it is geared toward an explanation of male transsexualism, however, I was left

with a question concerning the genesis of female transsexualism.

Has Stoller studied the family history of such females, or are we once again expected to generalize to females behavior patterns based on data gathered solely from males?

Beverly Lynn Battle
Assistant Professor

Health & Physical Education
Thomas Nelson Community College
Hampton, Va.

Scientists as arbiters

Four of five letters in your April 9 issue impinge on the scientist and his position in society. Roger Van Scoy, referring to controls on recombinant DNA asks, "What will happen to the right of free inquiry when one area of science is taken out of the hands of experts, and put in the hands of politicians?" I suggest he address that question to the physicists, microbiologists, psychologists, anthropologists, social scientists, et al. who sold it to the CIA, Department of Defense, AEC, etc. Then, Fred R. Monaco makes a personal attack on Mayor Vellucci, without attacking his arguments, and concludes, "If Velluci had been at Kitty Hawk . . . no doubt he would have applauded: If God had meant man to fly, he would have given him wings!" No doubt, Mr. Monaco? And Patricia Howe feels Dr. Gullis has been done an injustice. Dr. Gullis fabricated experimental data and Patricia Howe sees a far more serious question, "a deadly tendency . . . not to train our scientists to be honest, but achieve results."

The supposition that scientists, one and all, are dedicated to free inquiry, the implication that free inquiry brooks no discussion of the possible effects, the reasoning that leads Mr. Monaco to know without doubt what Mayor Velluci would have said at Kitty Hawk, and the suggestion of Patricia Howe that scientists are not trained to be honest, or indeed, by implication, that they need to be trained to be honest, makes me wonder why scientists think that they should be the guardians of free inquiry and the arbiters of our destiny. If each scientist reserves for himself this right, then . . . *Quis custodiet ipsos custodes?*

Harley Gordon, M.D.
Chairman
Department of Pediatrics
The Catholic Medical Center
of Brooklyn and Queens
Jamaica, N.Y.

Address communications to Editor,
Science News, 1719 N Street, N.W.
Washington, D.C. 20036

SCIENCE SERVICE

Institution for the public understanding of science founded 1921; a nonprofit corporation

Board of Trustees—Nominated by the AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE: **Deborah P. Wolfe**, Queens College of City University of New York; **Bowen C. Dees**, The Franklin Institute; **Athelstan Spilhaus**, National Oceanic and Atmospheric Administration. Nominated by the NATIONAL ACADEMY OF SCIENCES: **Gerald F. Tape**, Associated Universities; **Allen V. Astin**, Bethesda, Md.; **Glenn T. Seaborg** (President), University of California, Berkeley. Nominated by the NATIONAL RESEARCH COUNCIL: **Gerald Holton**, Harvard University; **Joseph W. Berg Jr.**, National Research Council; **Aaron Rosenthal**, National Academy of Sciences. Nominated by the JOURNALISTIC PROFESSION: **Edward Bliss Jr.**, American University; **Julius Duscha**, Washington Journalism Center; **O. W. Riegel** (Secretary), Washington and Lee University. Nominated by E. W. Scripps Trust: **Milton Harris** (Treasurer), Washington, D.C.; **Edward W. Scripps II** (Vice President and Chairman of the Executive Committee), Edward W. Scripps Trust; **John Troan**, Pittsburgh Press.

Director: E. G. Sherburne Jr., Assistant Director: Dorothy Schriver; Business Manager: Donald R. Harless; Things of Science: Ruby Yoshioka

MAY 7, 1977

291