

## OF THE WEEK

Endangered species spawn more debate	68
Events conspire to doom Skylab	68
PETRA in operation	69
Scientists' reaction to Soviet trials	69
Marital sex: What is normal?	70
Losing more than weight with liquid protein	70
The good news and the bad news for Viking	70
Variation in blood types pinpointed	71
Preventing infection: Just a spoonful of sugar	71
Senate votes Department of Education	71

## RESEARCH NOTES

Behavior	72
Energy	73
Chemistry	73

## ARTICLES

Between the cradle and the grave	74
A quick trip to Venus	78

## DEPARTMENTS

Letters	67
Books	79

**COVER:** Middle age poses numerous questions to behavioral researchers. As with childhood, adolescence and old age, the middle years constitute a happy period of self-fulfillment for some and an agonizing time of painful transition for others. Investigators are finding that for most Americans middle age falls somewhere between those two extremes. See page 74. (Cover design by Dale Appleman; painting courtesy of Art Institute of Chicago)

<b>Publisher</b>	E. G. Sherburne Jr.
<b>Editor</b>	Robert J. Trotter
<b>Senior Editor and Physical Sciences</b>	Dietrick E. Thomsen
<b>Behavioral Sciences</b>	Joel Greenberg
<b>Biomedicine</b>	Joan Arehart-Treichel
<b>Life Sciences</b>	Julie Ann Miller
<b>Policy/Technology</b>	Janet Raloff
<b>Space Sciences</b>	Jonathan Eberhart
<b>Contributing Editors</b>	Lynn Arthur Steen (mathematics) Kendrick Frazier John H. Douglas
<b>Science Writer Intern</b>	William J. Broad
<b>Assistant Editor</b>	Judy Klein
<b>Art Director</b>	Dale Appleman
<b>Assistant to the Editor/Staff Writer</b>	Susan West
<b>Books</b>	Jane M. Livermore
<b>Business Manager</b>	Donald Harless
<b>Advertising</b>	Scherago Associates 1515 Broadway New York, N.Y. 10036 Fred W. Dieffenbach, Sales Director

Copyright © 1978 by Science Service, Inc., 1719 N St., N.W., Washington, D.C. 20036. Republication of any portion of SCIENCE NEWS without written permission of the publisher 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.) Change of address: Four to six weeks' notice is required. Please state exactly how magazine is to be addressed. Include zip code.

Printed in U.S.A. Second class postage paid at Washington, D.C. Title registered as trademark U.S. and Canadian Patent Offices.

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. ISSN 0036-8423

# LETTERS

## Which came first?

After discovering the very interesting link between human aggressiveness and levels of serotonin and norepinephrine in cerebrospinal fluid (SN: 6/3/78, p. 356), Dr. F. Goodwin suggests that "the treatment implications are obvious"—referring to chemical treatments (e.g. lithium) that could alter the levels of these hormones.

Such treatment may be called for in extreme cases, as in a psychiatric hospital where a patient endangers others by his violent behavior. Not so obvious are the implications for less extreme cases. The question of the cause of aggressiveness remains open. The effects of moral values are at present virtually impossible to measure, and therefore such effects are usually ignored by researchers investigating links between biochemistry and behavior. It is perfectly likely, however, that aggressiveness in some cases could be determined (or permitted) by a person's value system, and that the alterations of hormone levels are *results* of the aggressive attitudes.

It would be interesting if one could find some individuals whose serotonin or norepinephrine (or whatever) levels had been measured prior to radical changes in their lives—e.g., religious conversion—so that the effect of values alone could be estimated more easily.

Brian Mustain  
College Station, Tex.

## May the force be with you

Your article "A Giant Step Toward Unified Field Theory" (SN: 7/8/78, p. 20) was highly interesting. Of particular note was the statement that the Weinberg-Salam model predicts that electromagnetism and the weak force are actually one.

Electricity and magnetism were regarded as being separate entities (as your historical note reminds us) and yet were "combined" into one by Maxwell's equations.

With this trend toward the merging of fields, doesn't it seem likely that physics will arrive at a single force? Isn't this what a unified theory is all about: *one theory* describing *one force* in its various manifestations (gravity, electromagnetism, etc.)?

Could it be that segregated thinking, i.e. "separate forces," has been an impediment to the formulation of a unified field theory? After all, our ability to properly visualize and therefore see things as they really are is crucial to our understanding them.

Gary J. Cook  
Portland, Mich.

## For now, surgery

In his letter on strabismus and surgery (SN: 6/17/78, p.387), Merrill J. Allen (no relation)

states that "strabismus... is usually cured with... surgery" which is "only rarely needed."

When my daughter mysteriously developed a pronounced case of esotropia (crossed eyes), I heard this often from optometric practitioners. Using my inside track as a research scientist, I spent about a year investigating, and in some cases trying, various nonsurgical squint therapies, including medication, hypnosis, and visual exercises. Nothing worked on my daughter, and, more significantly, I could not find a high success rate for any of the nonsurgical techniques, even though I limited my attention to major treatment centers.

Finally, I opted for surgery, and a relatively brief procedure produced an instant and complete cure with absolutely no untoward side effects.

M.J. Allen is probably correct when he says that strabismus is "a functional disorder of sensory input to the brain," and, as a scientist, I strongly agree that we ought to learn enough about the brain to have a sure-fire nonsurgical cure for this disorder. In the meantime, it seems clear that one is not currently available, and, as a parent, I feel fairly grateful for a surgeon who quickly gave my daughter a normal appearance and completely binocular vision.

Allen D. Allen  
Northridge, Calif.

## Primate lust—a myth?

If all of those big male primates Leutenegger (SN: 6/17/78, p. 397) says are polygynous are in fact polygynous I'll eat my Ph.D.! While the males in sexually dimorphic primate species often do mate with more than one female the females also usually play the field—soliciting multiple mates. The field, however, is not much played upon by either males or females, since intercourse, which is almost always initiated by females, is not a frequent pastime nor the all-consuming passion of the so-called lustful aggressive males.

The sexy, domineering Old Man of the Tribe that Freud derived from Darwin's inaccurate image of gorilla social life has proved to be a fantasy, though he is still, evidently, attractive to theorists proposing "new" theories of why bigger males than females occur in some primate species. Such theories just don't fit the data. For an alternative model—which does not misrepresent primate males as slaving, sexy, jealous monsters—please see my book *Females, Males, Families: A Biosocial Approach* (Duxbury, No. Scituate MA 1978) or—for a shorter version of the model—my article in *Towards an Anthropology of Women* ed. Rayne Reiter, (Monthly Review Press, N.Y. 1976)

Lila Leibowitz  
Boston, Mass.

## Correction:

*The rainwater runoff of kepone into local waterways (SN: 6/24/78, p. 405) should read 3.3 grams/day under low flow, 64 g/day under storm conditions.*

## SCIENCE SERVICE

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

**Board of Trustees**—Allen V. Astin, Bethesda, MD; Joseph W. Berg Jr., National Research Council, Washington, DC; Edward Bliss Jr., Newburyport, MA; Bowen C. Dees, The Franklin Institute, Philadelphia, PA; Julius Duschka (Secretary), Washington Journalism Center, Washington, DC; David A. Goslin, National Research Council, Washington, DC; Milton Harris (Treasurer), Washington, DC; Elizabeth F. Neufeld, National Institutes of Health, Bethesda, MD; O. W. Riegel, Glasgow, VA; Aaron Rosenthal, Washington, DC; Edward W. Scripps II, Edward W. Scripps Trust, Carson City, NV; Glenn T. Seaborg (President), University of California, Berkeley, CA; Gerald F. Tape (Vice President), Associated Universities, Washington, DC; John Troan, Pittsburgh Press, Pittsburgh, PA; Deborah P. Wolfe, Queens College of City University of New York, Flushing, L.I., NY

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