

SCIENCE NEWS®

The Weekly Newsmagazine of Science

Science Service Publication
Volume 150, No. 11, September 14, 1996

Donald R. Harless	Publisher
Julie Ann Miller	Editor
Blair Burns Potter	Managing Editor
Dan Skripkar	Production/Design Director
David Lindley	Associate Editor
Janet Raloff	Senior Editor Environment/Policy
Ron Cowen	Astronomy
Bruce Bower	Behavioral Sciences
Corinna Wu	Chemistry/ Materials Science
Richard Monastersky	Earth Science
John Travis	Biology
Kathleen Fackelmann,	Biomedicine
Steve Sternberg	
Tina Adler	Life Sciences
Ivars Peterson	Mathematics/Physics
Dan Vergano	Science Writer Intern
Meghan Mitchell	Editorial Assistant
Cait Anthony	Books/Advertising

SCIENCE NEWS (ISSN 0036-8423) is published weekly on Saturday, except the last week in December, for \$49.50 for 1 year or \$88.00 for 2 years (foreign postage \$6.00 additional per year) by Science Service, Inc., 1719 N Street, N.W., Washington, D.C. 20036. Preferred Periodicals postage paid at Washington, D.C., and additional mailing office. **POSTMASTER:** Send address changes to SCIENCE NEWS, P.O. Box 1925, Marion, Ohio 43305. Change of address: Four to six weeks' notice is required — old and new addresses, including zip codes, must be provided. Copyright © 1996 by Science Service, Inc. Title registered as trademark U.S. and Canadian Patent Offices. Printed in U.S.A. on recycled paper. ♻️ Reproduction of any portion of SCIENCE NEWS without written permission of the publisher is prohibited.

Editorial and Business Offices:
1719 N St. N.W., Washington, D.C. 20036
202-785-2255; scinews@scisvc.org

Advertising Representative:
Lewis Edge & Associates, Inc.
366 Wall St., Princeton, N.J. 08540, 609-683-7900

Subscription Department:
P.O. Box 1925, Marion, Ohio 43305
For new subscriptions only, call 1-800-247-2160.
For customer service, call 1-800-347-6969.

SCIENCE NEWS ONLINE <http://www.sciencenews.org>

This Week

- 164 It Takes Two Compasses to Fly Right
- 164 Faulty circuit may trigger schizophrenia
- 165 Banned pollutant's legacy: Lower IQs
- 165 New chemical filters block laser bursts
- 165 The trouble with condoms
- 166 Slew of distant galaxies tells a cosmic tale
- 166 El Niño is bashful about revealing its age
- 167 An illuminating partnership for squid
- 167 Registering visitors to metal surfaces

Research Notes

- 170 Biology
- 170 Biomedicine
- 175 Astronomy
- 175 Biology

Articles

- 168 Tagged Out
Cover: On April 19, 1995, a truck bomb ripped open the Alfred P. Murrah Federal Building in Oklahoma City and killed 169 people. Recent terrorist acts have prompted lawmakers to consider adding microscopic identification tags to explosives, but opponents claim the tags compromise safety. New technology may lay those fears to rest. (Photo: Chris Smith, Archive Newsphotos)
- 172 Sponges and Sinks and Rags, Oh My!

Departments

- 162 Books
- 163 Letters

Science Service, which publishes SCIENCE NEWS, is a nonprofit corporation founded in 1921 to increase the public understanding of science. Through its youth programs, it administers the International Science and Engineering Fair and the Science Talent Search for the Westinghouse science scholarships.

Board of Trustees — *Chairman*, Dudley Herschbach; *Vice Chairman*, Gerald F. Tape; *Secretary*, David A. Goslin; *Treasurer*, Willis Harlow Shapley; Joseph W. Berg Jr.; Robert W. Fri; J. David Hann; Shirley M. Malcom; C. Bradley Moore; Ben Patrusky; H. Guyford Stever; Sanford J. Ungar; Deborah P. Wolfe.

Honorary Trustees — *Chairman Emeritus*, Glenn T. Seaborg; Edward Bliss Jr.; Bowen C. Dees; Elena O. Nighthalingale; O.W. Riegel; John Troan.



Letters

Uses of stereotypes

It is not stereotypes that are dangerous ("Fighting Stereotype Stigma," SN: 6/29/96, p. 408). The real danger comes from failure to upgrade in individual cases from a rough sketch to a more detailed picture, which would permit more accurate predictions of a person's behavior and reactions.

On the uglier side of the survival equation, refusing to see others as individuals makes it easier to deprive, hurt, or kill them. After all, generals don't exhort soldiers to recall that the enemy may have babies at home.

When competition for food, shelter, space, and other resources leads to the chilling realization that there simply isn't enough for everybody, it seems negative stereotyping is inevitable.

We can expect negative stereotyping to end when the competition for survival ends—that is, when we have universal abundance, wealth, space, safety, education, and health care for all.

I'm not holding my breath.

*Anthony M. Castaldo
San Antonio, Texas*

In printing, stereotyping indicates that a block of type, after being prepared, is used repetitively in an automatic fashion. Similarly, cultural stereotypes are conscious or unconscious substitutions of social dogma for personal experience. They are similar in many respects to superstitions, and like superstitions, most of them are negative.

Whatever "grain of truth" may be imbedded in the cultural stereotype, any advantage accruing from its alleged "usefulness" is more than offset by the personal unfairness of its application to individuals and the blinding of its subscriber to the reality of the moment.

*Stephen E. Silver
New London, Conn.*

In discussing a University of Michigan study, you say: "Teachers' perceptions of their students closely matched the students' self-

reported motivation and their actual performance. . . . No evidence emerged for teacher bias against black students, girls, or students from poor families." The study, as described, showed a strong correlation between teacher ratings of new students and "objective measures"—standardized test scores and last year's grades—of talent and motivation.

We have known for a long time that teachers' expectations and "objective measures" are strongly correlated, so what this study really shows is that this year's teacher expectation correlates strongly with last year's.

It would be amazing if evidence of teacher bias emerged from a study evidently based on the notion that such bias and its effects don't begin until the sixth grade.

*Forrest Curo
San Diego, Calif.*

Correlations of teacher expectation with student achievement do not prove causation; they could easily reflect teacher accuracy in assessing students' abilities. —B. Bower