

SCIENCE NEWS®

The Weekly Newsmagazine of Science

Science Service Publication
Volume 147, No. 24, June 17, 1995

Alfred Scott McLaren	Publisher
Blair Burns Potter	Interim Editor
Dan Skripkar	Production/Design Director
David Lindley	Associate Editor
Janet Raloff	Senior Editor
	Environment/Policy
Ron Cowen	Astronomy
Bruce Bower	Behavioral Sciences
Richard Lipkin	Chemistry/ Materials Science
Richard Monastersky	Earth Sciences
Tina Adler	General Science
Kathleen Fackelmann, John Travis, Lisa Seachrist	Life Sciences/ Biomedicine
Ivars Peterson	Mathematics/Physics
Damaris Christensen	Editorial Assistant
Cait Anthony	Books/Resource Manager
Donald R. Harless	Advertising/Business Manager

SCIENCE NEWS (ISSN 0036-8423) is published weekly on Saturday, except the last week in December, for \$44.50 for 1 year or \$78.00 for 2 years (foreign postage \$6.00 additional per year) by Science Service, Inc., 1719 N Street, N.W., Washington, D.C. 20036. Second-class 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 © 1995 by Science Service, Inc. Title registered as trademark U.S. and Canadian Patent Offices. Printed in U.S.A. on recycled paper. ♻️

Editorial and Business Offices:
1719 N St. N.W., Washington, D.C. 20036
(202-785-2255)

Republication of any portion of SCIENCE NEWS without written permission of the publisher is prohibited.

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.

This Week

- 372 Eyeing Evidence of Primordial Helium
- 372 Mixing air into sand to get fluidlike flow
- 373 HIV-2 offers protection against HIV-1
- 373 Understanding speech: I see what you mean
- 374 New 'design rules' yield novel drugs
- 374 Coming: Drug therapy for chocoholics?
- 375 Death halts trial of kidney cancer drug
- 375 Progesterin fails to cut breast cancer risk

Research Notes

- 381 Behavior
- 381 Biology
- 383 Biology
- 383 Health Physics

Articles

- 376 Blood from Stones
- 378 Moods and the Muse

Cover: A biographical study of eminent people in a variety of fields—including the painter Paul Gauguin, shown in a self-portrait—concludes that great innovations spring from a template of personality traits and personal experiences. The findings suggest that manic depression and other mental disorders play a smaller role in creative achievement than some scientists have proposed. (Paul Gauguin, *Self-Portrait* (1889), courtesy of National Gallery of Art/Chester Dale Collection, Washington, D.C.)



Departments

- 370 Books
- 371 Letters

Science Service, which publishes SCIENCE NEWS, is a nonprofit corporation founded in 1921. It gratefully accepts tax-deductible contributions and bequests to assist its efforts to increase the public understanding of science, with special emphasis on young people. More recently, it has included in its mission increasing scientific literacy among members of underrepresented groups. Through its Youth Programs it administers the International Science and Engineering Fair, the Science Talent Search for the Westinghouse Science Scholarships, and publishes and distributes the *Directory of Student Science Training Programs for Precollege Students*.

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; Elena O. Nightingale; Ben Patrusky; Peter H. Raven; H. Guyford Stever; Sanford J. Ungar; Deborah P. Wolfe. **Honorary Trustees** — *Chairman Emeritus*, Glenn T. Seaborg; Edward Bliss Jr.; Bowen C. Dees; O.W. Riegel; John Troan.

President: Alfred Scott McLaren; **Vice President and Business Manager:** Donald R. Harless.

Letters

Orang harangues

Your article on the hybrid orangutans is very disturbing ("Caste-Off Orangs," SN: 3/25/95, p. 184). There are already too few of these animals left in the wild or in captivity for us to be playing games with their futures.

Curtailing the gene pool comes perilously close to ensuring eventual extinction. What, after all, is more important: to have discrete populations of highly speciated orangutans to look back on or to have orangutans, period?

It is unnecessary to look beyond the cheetahs to see the effects of a limited gene pool. Haven't these people ever heard of hybrid vigor?

Carol Epstein
Fresno, Calif.

The classic definition of a species has been related to the ability to produce fertile offspring.

Chihuahuas and St. Bernards, though quite different in appearance, are of the same species (though their mating challenges the imagination!). Horses and donkeys, though closely related and similar in appearance, belong to different species because their offspring, the mule, is sterile.

Since the Bornean and Sumatran orangs produce fertile offspring, it would appear obvious that they are of the same species.

If we are going to use sophisticated DNA evidence to decide this question, where (in either direction) might this slippery slope lead? Just how does a subspecies differ from a race or a breed?

People and chimpanzees share 98 percent of the same genome. Perhaps chimps are a different race of human, not a different species.

Stephen G. Hayes
Rosemead, Calif.

Using the ability to produce fertile offspring as the criterion for being of a single species,

the Bornean and Sumatran orangutans qualify. They don't mate because of geographical inaccessibility. In the zoos, they mated voluntarily and their offspring are fertile.

Bonnie Schaffer
Schenectady, N.Y.

No buts about it

Keith Baker is in error in his letter (SN: 2/18/95, p.99) stating that the "side effects" of the surgery in the ACAS (asymptomatic carotid atherosclerosis study) trial must be added to the event rate for the surgery group, thereby reducing the surgical advantage. The event rate for the surgery group includes perioperative strokes or deaths as well as arteriographic complications, so no such recalculation is needed.

James F. Toole
ACAS Principal Investigator
Bowman Gray School of Medicine
Wake Forest University
Winston-Salem, N.C.

JUNE 17, 1995

371