

SCIENCE NEWS®

The Weekly Newsmagazine of Science

A Science Service Publication
Volume 128, No. 8, August 24, 1985

| | |
|-------------------------------------|-------------------------------------|
| E. G. Sherburne Jr. | Publisher |
| Joel Greenberg | Editor |
| Dietrick E. Thomsen | Senior Editor/ Physical Sciences |
| Laurie Jackson Phillips | Managing Editor |
| Wendy McCarren | Production/Design Director |
| Bruce Bower | Behavioral Sciences |
| Joanne Silberner | Biomedicine |
| Stefi Weisburd | Earth Sciences |
| Julie Ann Miller | Life Sciences |
| Janet Raloff, Ivars Peterson | Policy/Technology |
| Jonathan Eberhart | Space Sciences |
| Susan Welch Gilday | Assistant to the Editor |
| Jennie Dusheck, Judith Mathewson | Science Writer Interns |
| Jane M. Livermore | Books |
| Donald R. Harless | Advertising/Business Manager |

Copyright © 1985 by Science Service, Inc.,
Editorial and Business Offices,
1719 N St., N.W., Washington, D. C. 20036.
Republication of any portion of SCIENCE NEWS
without written permission of the publisher is
prohibited.

Subscription Department
231 West Center Street, Marion, Ohio 43305

Subscription rate: 1 yr., \$29.50; 2 yrs., \$50.00.
(Foreign postage \$5.00 additional per year.) Change
of address: Four to six weeks' notice is required.
Please state exactly how magazine is to be
addressed. Include zip code. For new subscriptions
only call (1) 800-247-2160. 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)
ISSN 0036-8423

Letters

Predetermined conclusions?

What would you think of a "scientist" who proposed to other researchers that they should avoid making certain conclusions from their research ("The 'mother-blaming' problem," SN: 8/3/85, p. 76), because the "proposer" didn't like the implications toward a certain population group? This person also happens to be a member of the potentially implicated group.

Further, how should research done by this individual involving the above population group (women again) be interpreted ("A woman's plight: Spatial slurs," SN: 8/3/85, p. 76)?

I would have grave doubts about its credibility. Ms. Caplan seems to think we should ignore the facts in order to obtain a predetermined set of conclusions.

Paul Drallos
Royal Oak, Mich.

AUGUST 24, 1985

This Week

- 116 A Common Ancestor of Higher Primates?
- 117 Research progress toward gene therapy
- 118 Supercomputer for rugged environments
- 118 Microscope maps minuscule magnetism
- 119 Ruling on nuclear waste
- 119 HTLV-III virus: Themes and variations
- 119 'Off switch' for cell division found

Research Notes

- 124 Behavior
- 124 Biology
- 125 Biomedicine

Articles

- 120 Somaclonal Variation

Cover: Slices of carrots placed into laboratory cell culture are the starting point for the development of new, crunchier varieties of carrots. (Photo: Chris Jones, courtesy DNA Plant Technology Corp.)



Departments

- 114 Science on the Air
- 115 Letters
- 122 Commentary
- 126 Books

Science Service Institution for the public understanding of science founded 1921; a nonprofit corporation.
Board of Trustees—*President*, Glenn T. Seaborg; *Vice President*, Gerald F. Tape; *Treasurer*, Willis Harlow Shapley; *Secretary*, Hilleary F. Hoskinson; *Joseph W. Berg Jr.*; *Edward Bliss Jr.*; *Bowen C. Dees*; *David A. Goslin*; *Milton Harris*; *Elena O. Nightingale*; *O. W. Riegel*; *H. Guyford Stever*; *John Troan*; *Deborah P. Wolfe*.
Director: E. G. Sherburne Jr.; *Assistant Director*: Dorothy Schriver; *Business Manager*: Donald R. Harless.

Einstein, Mach make amends

"Clocks test Einstein vs. Mach" (SN: 6/22/85, p. 388) exaggerates the difference between Einstein and Mach.

Mach theorized that the far-flung masses of the universe have local effects, right here on earth, and Einstein quantified the idea by showing that these local effects are due to the space-time metric, which is indeed determined by the energy-momentum tensor of the universe — Einstein's refinement of the far-flung masses contemplated by Mach.

The clock experiments favor Einstein but do not contradict Mach, because the metric had its main effect here long ago, shortly after the "Big Bang," when the universe was so small, and the curvature of space-time was so great, that gravity (the force Einstein derived from the space-time metric) was very much stronger than it is now. At that early stage, the present laws of na-

ture crystallized out of the metric, so to speak, and have retained the form gravity gave them long ago. Now the galaxies recede, having done the work Mach ascribed to them, but it took Einstein to explain how. If the universe recontracts and starts over again, physics may recrystallize in a different form, with new parameters, altered masses and different laws.

Kenneth J. Epstein
Chicago, Ill.

Correction: The Western blot test used to check a positive AIDS ELISA test ("AIDS Blood Test: Qualified Success," SN: 8/10/85, p. 84) does not determine the size of antibodies but instead detects the presence of antibodies to antigens of particular sizes. In the AIDS check, the antigens are known AIDS viral proteins, and only antibodies that react with them represent a positive result.

115