

The Weekly Newsmagazine of Science

A Science Service Publication Volume 125, No. 10, March 10, 1984

Publisher

Senior Editor/ Physical Sciences

Managing Editor

Production/Design

Behavioral Sciences

Editor

Director

Biomedicine

Earth Sciences

Policy/Technology

Space Sciences

Assistant to the Editor

Science Writer Intern

Business Manager

Life Sciences

Chemistry

Books

E.G. Sherburne Jr. Joel Greenberg Dietrick E. Thomsen

Joanne Silberner

Judy Klein

Bruce Bower Deborah Franklin Linda Garmon Cheryl Simon Julie Ann Miller Janet Raloff. Ivars Peterson

Jonathan Eberhart Wendy McCarren Stefi Weisburd Jane M. Livermore

Donald R. Harless

Scherago Associates Advertising Fred Dieffenbach, Sales Director 1515 Broadway, New York, N.Y. 10036

Copyright © 1984 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

Subscription Department 231 West Center Street, Marion, Ohio 43302

Subscription rate: 1 yr., \$27.50; 2 yrs., \$47.50; 3 yrs., \$67.00. (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. Firnted 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

This Week

148 Altruism Absent in Mom Bats An ostrich place in bird family tree 149 Academic memories: The long goodbye 149 150 Genes, stars, puzzle win Talent Search Now in orbit: The last (?) Landsat 150 150 Ariane launch ESA's last Pain killer abuse spells renal damage 151 Clot-buster clicks in human trials 151

EPA to limit, then ban EDB in citrus

Research Notes

152	Technology
152	Earth Sciences
153	Chemistry
153	Food Science

Articles

151

154 Gravitational Refractions

Cover: This is a false color image of an optical illusion. The image of a single quasar is here supposed to be doubled by a gravitational lens. (Photo courtesy MMTO/Smithsonian Institution-Univ. of Ariz.)

156 Uncovering the Forgotten Freudians



Departments

147 Letters 158 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, Julius Duscha; Joseph W. Berg Jr.; Edward Bliss Jr.; Bowen C. Dees; David A. Goslin; Milton Harris; Hilleary F. Hoskinson; Elizabeth F. Neufeld; O. W. Riegel; H. Guyford Stever; John Troan; Deboreh B. Wolfe* Deborah P. Wolfe.

Director: E. G. Sherburne Jr.; Assistant Director: Dorothy Schriver; Business Manager: Donald R. Harless

Letters

Amused?

I was not amused to read the letter by Andy Mickel of Apollo Computer in the 2/4/84 issue. None of the claims made by Mr. Mickel are true; most of them are absurd. If Mr. Mickel is biased in favor of a relatively obscure and difficult language like Pascal, that's his problem. But he should not offer his prejudiced opinions as

> John Sachland Pilot Rock, Ore.

I was amused by Andy Mickel's dismissal of BASIC as "unreadable ... and impossible to verify as correct."

I have just finished delivering to a client three programs in Data/BASIC at a cost of 33 cents per line of code, for 2,189 lines of code. The programs digest 45,000 records, detailing them by warehouse, by seller, by customer, by product group and customer group. The reports summarize at each break all the lower level breaks.

Data/BASIC, which runs under the Pick [TM] Operating System, possesses all of the control structures required to write superb programs: Loops, Ifs, and Cases are all handled with dispatch. The variable names can be meaningful names (WHSE is the variable I used for the warehouse number), and paragraph numbers are independent of specific lines of code in the program.

While I concede that most people don't use the BASIC I use, Data/BASIC can perform circles around Pascal and all the other current "remedies" for the original basic deficiences in the Darmouth Language.

Coupled with the most modern relational data base management operating system currently availabe, the languages (Data/BASIC, English and Proc) of the Pick [TM] Operating System constitute the fourth generation operating system most users are looking for. Tell Andy that the future is now.

Dr. C. David Fischer Jr. Data Images, Inc. Phoenix, Ariz.

Depression information

A news item, "Changing Ideas in Depression" (SN: 1/28/84, p. 58), correctly underscores the fact that cognitive therapy and chemotherapy can affect the organism in the same way, namely producing improvements in cognitive functioning. Rather than attributing the findings to the interaction of psychological and physiological processes, we can postulate that the two forms of treatment affect the same system, namely the information processing system. Thus, cognitive deviations and biochemical deviations represent different perspectives of the same phenomenon. Consequently, the successful cognitive or biochemical intervention is bound to affect the brain in similar ways. I think that the findings support other findings in the literature suggesting that the "site of action" of drugs (as well as cognitive therapy) is the information processing system - not the "mood centers of the brain.

Aaron T. Beck, M.D. University Professor of Psychiatry University of Pennsylvania Philadelphia, Pa.

Ed.'s note: Aaron T. Beck is the author of the widely used Beck Depression Inventory and was a pioneer in the development of cognitive therapy

147 MARCH 10, 1984