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This Week

- 116 Gamma Interferon Slays Microbial Invaders
- 116 A radical mechanism for methane buildup
- 117 When armored tanks walked on four legs
- 117 Gene defect tied to Alzheimer's cases
- 117 Nylon: Sheer havoc
- 118 Snowflake growth puts on electrifying show
- 118 Insight proves key to marital therapy
- 119 Liquid crystal bridges silk-spinning gap
- 119 Ultrasound 'eye' scans organs from within

Research Notes

- 125 Astronomy
- 125 Earth Sciences

Articles

- 120 'Go For It, Kid'
Cover: Forty high school seniors — winners of the 50th annual Westinghouse Science Talent Search — will gather in Washington, D.C., next week to exhibit their research projects, visit with noted scientists and compete for \$205,000 in scholarship money. Each of the 40 students receives at least \$1,000; the top three winners share a total of \$90,000. (Photo: Westinghouse Electric Corp.)
- 127 The Signal Value of Noise

Departments

- 115 Letters
- 126 Books

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Letters

Truth in doubt

Being both a student and an educator, I read with keen interest "True Believers" (SN: 1/5/91, p.14). Any new research that can shed light on how we learn is a top priority in my world. Therefore, when I began to reflect on what I had read, I found myself entangled in confusion.

If I believed the article, then — because I had been interrupted twice while reading it — I should doubt its truth. But if I doubted its truth, then maybe I should *not* doubt its truth.

Now you've done it! Will I ever be able to go back to being a naive Cartesian again?

Seriously, these researchers have hit upon a truth that is sobering in its implications. Evidently, we may *be* simply what we see, hear or read. Given the content of today's media, the thought is jolting.

D. LaBarbera
Nacogdoches, Texas

What is "seemingly preposterous" about

Spinoza's contention that a proposition must be accepted at least provisionally before it can be rationally analyzed?

This statement reflects the true believers who see scientific objectivity as a permanent stance of skepticism and critical analysis. They do not admit that they have, by necessity, accepted on faith the proposition that the information presented by our senses is in some measure "true," and that its nature is independent of the mind that seeks to analyze it.

Rhoda R. Gilman
Member, Minnesota Independent
Scholars Forum
St. Paul, Minn.

"True Believers" is an interesting piece on cognitive processes. However, I am perplexed by psychologist Daniel T. Gilbert's assertion that "healthy people immediately believe what they see," if this implies that "nonhealthy" minds would be more inclined to be skeptical.

Where would that leave scientists, who are presumed to possess large doses of critical

thinking and doubting in their belief systems?

Robert Meier
Bloomington, Ind.

The phrase you cite refers to physically healthy adults with normal vision. The skepticism of "nonhealthy" minds (whatever that means) remains unclear. But Gilbert's findings indeed serve up some humble pie for scientists and echo Thomas Kuhn's notion that scientists often uncritically accept "paradigms" that guide their research. (See Kuhn's *The Structure of Scientific Revolutions*, 1970, University of Chicago.)

— B. Bower

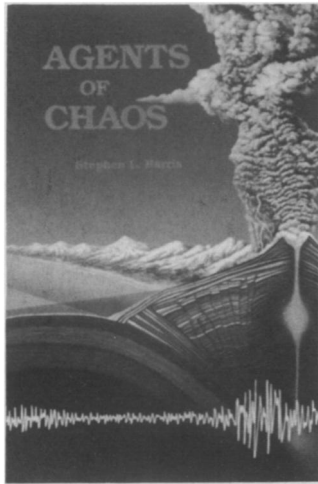
Mixing lit and lab

"Poetry Lessons" (SN: 12/22&29/90, p.396) took me back to my undergraduate days at MIT, where all students were required to take at least eight humanities courses. Although the requirement was the subject of much grumbling, many of us took great pleasure in it — and

Letters continued on p.124

FEBRUARY 23, 1991

115



Agents of Chaos explores the seismic and volcanic hazards that threaten North America and explains the geologic role of ice and fire in shaping this continent. Focusing on the West, Harris tours natural-disaster hotspots and examines what they tell us about our restless planet. He draws on sources ranging from the latest scientific research to ancient American Indian geomythology to illuminate the power of chaos and the geologic hazards through which it operates.

Mountain Press, 1990, 260 pages, 6" x 9", paperback, \$12.95

The Coming Quake

Science and Trembling on the California Earthquake Frontier
by T. A. Heppenheimer

The Coming Quake is a probing, in-depth study of California earthquakes of the past, present and future. Heppenheimer weaves scientific research with the history and legends of earthquakes in his exploration of the history of earthquake prediction, what scientists can and cannot predict about quakes, and scenarios for using technology to control them.

Paragon House, 1990, 290 pages, 5 1/2" x 8 1/4", paperback, \$12.95

:15 Fifteen Seconds: The Great California Earthquake of 1989

This compilation of photographs and quotes from survivors captures the devastation, pain and loss left in the wake of the earthquake that struck the San Francisco Bay area in 1989. Dedicated to the earthquake's victims, heroes and volunteers, these moving images include contributions from some of the nation's best photographers and were published within weeks of the quake through a collaboration of editors and photographers. All proceeds benefit quake victims.

Island Press, 1989, 119 pages, 10" x 9 1/2", paperback, \$19.95

Science News Books

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- **The Coming Quake**, \$12.95
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Letters continued from p.115

it lifted the burden of explaining to a science or engineering adviser why it was necessary to take that extra class in English, music, etc.

I have since found that my knowledge of logical problem solving improved my ability to think about nontechnical problems and write clearly focused papers. In turn, my humanities background has enriched my research as well as my ability to communicate the results, especially in my work as a statistical consultant with nontechnical collaborators.

Meredith G. Warshaw
Lincoln, Mass.

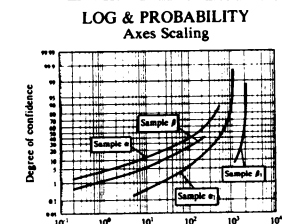
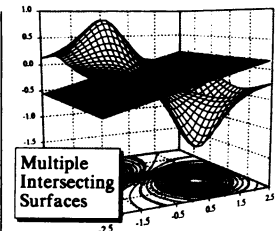
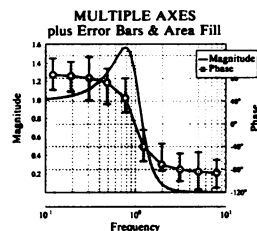
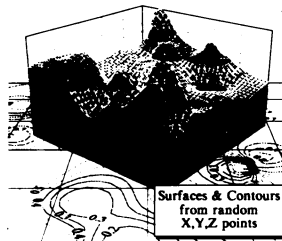
Adversarial assimilation?

Your article on the work of Denis R. Stanworth ("New allergy vaccine brings relief to rats," SN: 12/1/90, p.341), coupled with Stanworth's response to criticism by immunologist Henry Metzger (Letters, SN: 1/19/91, p.35), reveals the competition that so often characterizes innovative research efforts.

I wonder whether these "adversarial" camps have considered combining efforts by studying each other's research probes. It would be interesting to absorb Metzger's antisera with the synthesized peptide Stanworth has found capable of initiating nonspecific histamine release. Would this modified Metzger antisera be inactive? I also wonder whether immunization with Stanworth's peptide-based immunogen would alter the efficacy of Metzger's Fc-targeted antisera.

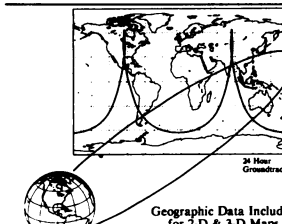
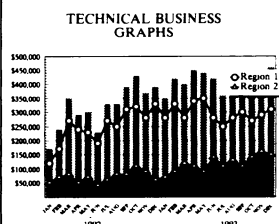
Richard H. Tew
Physician
Encinitas, Calif.

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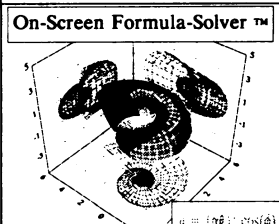


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