

The Jan. 1994 issue of Psychological Bulletin includes a research report including findings supporting the existence of psychic powers. This appears to be the first time such a study has been published by a major academic journal.

Psychological Bulletin is a refereed journal with great authority among research psychologists. All articles are reviewed by several authorities in the field before they are accepted for publication. Because of the journal's stature, this appears to be a major victory for psychic researchers, who in the past have been forced to publish their work in fringe journals with no authority in mainstream research psychology.

According to Science News, Jan. 29, 1994, the study was co-authored by Daryl J. Bem, Cornell University psychologist and magician, and Charles Honorton, University of Edinburgh, Scotland, now deceased. The method used is called the "ganzfeld" or whole field method, and uses two subjects for each trial, a "receiver" and a "sender." Each subject is placed in a sound-insulated, closed room, and further isolated with halves of ping-pong balls taped over the eyes and headphones providing a background hum. In addition, the rooms were lighted with a red flood light.

To start the experiment, one of 80 photographs (for example, an art print or an advertisement) or one of 80 video segments (for example, a tidal wave), was randomly selected to be the target. The sender was asked to concentrate on the target.

While the sender was concentrating on the target, the receiver was asked to speak for one half hour, reporting every thought and image that occurred in the receiver's mind.

Afterwards, the receivers watched a computer screen showing four images: the target image and three other images. They were asked to rate how well each of these images corresponded to the thoughts and images that had occurred to them during the previous half hour.

A "hit" (evidence of a telepathic message accurately received) was defined as any trial in which the receiver said that the target image was most like the thoughts and images that had occurred to them earlier while isolated.

Honorton and Bem reported 11 studies including a total of 240 subjects, 140 women and 100 men. Of these subjects, receivers made a hit in one-third of the trials. Chance alone would predict a hit in one-fourth of the trials. The researchers interpreted the findings as statistically significant evidence of an effect of the sender on the receiver.

The study producing the greatest ganzfeld effect was of 29 performing arts students (dance, drama, and music) who produced hits in half the trials. Science News reports that the authors interpreted these findings as an indication that artistic talents increase the ability to send or receive images. Another interpretation is possible, however. With a sample size as small as 29, any numbers produced are quite unstable, since the change of one or two cases markedly changes the outcome. A more conservative interpretation of this finding might conclude that the finding was dubious unless confirmed by a study using a larger sample.

Science News reports comments pro and con from a variety of sources, and also mentions that no theory which might explain such a transfer of information exists except for a quantum theory based notion put forward by parapsychologists. Quantum theory has been used incorrectly to explain phenomena in a variety of fields, according to Victor J. Stenger, professor of physics at the University of Hawaii. In "The Myth of Quantum Consciousness," The Humanist, May/June 1993, Stenger shows that there is no rational way to make connections between human consciousness and quantum theory.

The article in Science News about the study published in Psychological Bulletin is available on the Skeptics Forum, a forum on Productivity Online, a local bulletin board service. For information on how to access Productivity Online, see A.R.T. News, Dec. 1993.—Ed.

## Book Review

Higher Superstition: The Academic Left and Its Quarrels with Science.

Paul R. Gross and Norman Levitt.

Baltimore: Johns Hopkins University Press, 1994.

In this volume two scientists, a mathematician and a biologist, examine the writings on science of certain postmodern and constructivist literary theorists, of hostile feminist scholars, of Afrocentrists, and of eco-radicals suspicious of establishment science. The theories discussed are propounded by literary scholars occupying the highest rungs of academia, and published by reputable university presses. Yet, all of them are no better or more rational than the maundering of creationists or UFO cranks.

The authors emphasize that this new attack on science is as yet confined to a small coterie of writers on the academic left. They see it as growing out of the anti-authoritarian, anti-government attitudes of the sixties:

"Science, nowadays the most stable and unassailable convention of them all, presents an irresistible challenge to such contrary and defiant natures. It stands as a metaphor for the smug self-assurance of the ruling culture and the stability of institutions: therefore it must be brought low" (p. 224).

The fundamental complaint by these writers is that science is a creation of white males, of capitalist western and European culture, linear in thought, and representing little more than the deformed social perspectives of this tiny clique. Science in this view is not knowledge of the real world, but merely a discourse, a kind of description or myth created by one culture and period of history. The truth claims of orthodox science are not more privileged than those of any other time, culture, or place, e.g. of "Native American" or "Afro-centrist science." Radical authors in particular see science as unwilling to include any emotion, myth, feminist or cultural insight from outside its narrow view. Some of the writers appear to advocate that science needs to be overthrown in favor of a multi-cultural and feminist world view.

The academic radicals, from disciplinary backgrounds in literature, history or sociology, for the most part understand science poorly, and may be wholly illiterate in the fields they criticize. They are unwilling or unable to accept that scientific findings are reality driven, that theories must be empirically verified by the facts of nature, regardless of the social, racial, or economic status of the scientists involved. No matter how unpleasant a finding is to our feminist or ecological sensibility, e.g., that agent orange can't be shown to cause birth defects, or that DNA engineering works, the ultimate truth does not depend on whether we like it, but on reality "out there."

Gross and Levitt have no dispute with the demand that more women and minority persons ought to be trained and admitted into the scientific disciplines. The enterprise can only be improved thereby. Nor do they dispute that within research and the laboratory social and personal squabbles can make themselves felt so they may influence a research agenda or the pursuit of a favorite theory. Nor can it be denied that laboratory politics may from time to time impact a research program, but it is ludicrous to insist that politics as such determine the science. The findings of science are not determined by race or gender, by class or culture, by economics or politics but strictly and only by reality. Nor is empirical verification a species of bluster, or a collective hallucination of the power crazed (p. 58 - 59). Yet the logic of the cultural critics is, when conclusions are unacceptable by feminist, or constructivist or eco-radical, or multi-culturalist lights, then the science must be wrong.

The academic critics of science can be shown as perpetrating nonsense because they attack findings in disciplines where experimental verification can glaringly expose their ignorance. Most of them have made their academic reputation and promotion in fields less subject to objective criteria, in literature, in social theorizing, or in the history and philosophy of ideas. Gross and Levitt omit these writings as outside their boundaries of concern, and are too willing to grant they may have value. They in fact ask, "...why such shaky doctrines have been embraced so enthusiastically by individuals who are by no means stupid and who have often, as it happens, made penetrating analyses in other areas of social and political thought". (p. 217). I disagree. It is my personal contention that similar attacks on the canons of literature, on the achievements of western civilization, or on what has been dismissively called "dead, white, male culture" are as much claptrap as their attacks on science.

The writing style of Higher Superstition is remarkably simple, straightforward and clear for such a complex and

nuanced topic. I also like their tendency not to mince words but to use direct and outspoken language. "We must report ...a growing tendency among a particular breed of historians and sociologists of science to spring perverse theories. These seem often to escape mere inaccuracy and rush hell-for-leather toward unalloyed twaddle". (p. 43).

Working scientists, Gross and Levitt suggest, rarely read this literary theorizing and would not be influenced by it if they did. The danger of constructivist criticism, feminist enthusiasms, ecological utopianism and multi-cultural ideology lies in the suspicions of standard science which they may raise in the minds of the public, among undergraduate students, and responsible but uninformed administrators. In the long run they may weaken or eliminate the opportunity of structuring sound social policy based on scientific insight. This danger arises particularly from the fervent anti-scientism embraced by so many of the radical environmentalists and AIDS activists. If such views become broadly influential they will reduce the chance of solving problems which are quintessentially scientific (p. 156).—Wolf Roder.

Wolf Roder is a member of the faculty of the Department of Geography at the University of Cincinnati.  
Where Should A.R.T. Put Its Muscle?

At the March meeting, members thrashed out their ideas about where A.R.T. should invest its energy. Areas the organization had best stay out of were also discussed.

More members thought publishing the newsletter was the most important thing A.R.T. can do. Almost as many members thought that monitoring the news media for credulous reports of paranormal events was the most valuable place for A.R.T. to put its energy. In connection with this members decided to start a library of video "clippings" of reports of the paranormal on TV. Joe Gastright volunteered to be librarian for the collection. Members were asked to send video tapes to him.

Holding membership meetings and building a local network of skeptics also received support, followed by conducting investigations of paranormal activities, presenting workshops and advising teachers. Working to increase membership received the fewest votes.

Members agreed much more about what areas A.R.T. should stay out of. Highest on this list was challenging other people's "faith beliefs", beliefs, usually but not necessarily religious, that cannot be tested scientifically. Most of the members present chose this as the most important area for A.R.T. to avoid. Members also thought A.R.T. should avoid attacking individuals, as opposed to debunking the ideas presented by those individuals. A few members thought that A.R.T. should avoid challenging harmless superstitions, like knocking on wood. A few members also thought using newsletter space to present information on legitimate scientific controversies or on food and nutrition quackery was not a good use of A.R.T. resources.

Most members agreed that the discussion was helpful, although too brief, and that continued discussion would be useful.  
Alternative Medicine Office Update

Remember the Office of Alternative Medicine? It's the unit at the National Institutes of Health established in 1992 and given a magnificent \$2 million a year to put non-standard medical practices like acupuncture, homeopathy, and touch therapy to the scientific test. Dr. Joseph Jacobs, an American Indian trained in Navajo and Mohawk traditional medicine and pediatrician who went to Yale Medical School was appointed the first director of the office.

He lasted 20 months and has now quit and gone home to Connecticut to do something less stressful. His days at Alternative Medicine came to an end not because of conflicts with mainstream medical groups. He was able to persuade major groups, including the American Medical Association and the American Cancer Society, that research into alternative medical practices might be productive. He even established a program to place alternative medicine centers at mainstream medical schools.

He was also able to deal with the concerns of alternative medicine practitioners who were eager to subject their therapies to standard scientific scrutiny. The office has made 30 grants to alternative medicine practitioners to research

in a conventionally scientific manner such unconventional therapies as yogic breathing as a treatment for obsessive compulsive disorders and biofeedback as a treatment for diabetes.

Among dozens of thorny problems, the problem that drove Dr. Jacobs out was the aggressive approach of politicians and others supporting the immediate and unresearched acceptance of alternative medical therapies. Politicians and others with stories about a miracle cure due to one alternative therapy or another have been after Dr. Jacobs to hustle their favorite cure through the process to scientific acceptance.

These supporters demand that these therapies be allowed to skip the long, difficult path of double-blind, large scale clinical trials including control groups. Instead, they propose subjecting alternative medicine methods to "field trials." "Field trials" seems to be code for "anecdotal evidence." Alternative medicine proponents have proposed "testing" alternative methods by sending investigators to review the patient files of alternative medicine practitioners to discover whether the method is working. In short, advocates of alternative therapies believe that their methods should be exempt from conventional scientific scrutiny.

The notion of accepting "field trials" instead of research has reached the senate appropriations subcommittee in charge of allocating funds for the Office of Alternative Medicine. This subcommittee has proposed increasing the office's budget to \$6 million, with most of the new money going to "field trials."

Mainstream scientists say that at best "field trials" are useful only as a first step toward clinical trials. Outraged skeptics might consider a letter to Senator Tom Harkin, Democrat from Iowa and sponsor of the bill creating the Office of Alternative Medicine. Address: Sen. Thomas Harkin, 531 Senate Office Building, Washington D. C. 20510. Phone: 202-224-3254; fax, 202-224-7431.—Ed.

Source: Natalie Angier. "U.S. Head of Alternative Medicine Quits." New York Times. National Edition. August 1, 1994, p. A7.

Letters to the Editor  
Real vs. False Science

To the Editor:

Here for your consideration is a checklist for distinguishing real science from false science:

Real Science    False Science

Questioning, uncertain    Has all the answers

Growing, changing    Fixed, with no innovation

Testable--puts itself out on a limb    Always hedges its bets

Moves through orthodox channels    Outsiders yelling in

Uses measurable means    Relies on unexplainable, undetectable means

Open to criticism    Claims persecution if criticized

Few Galileos, but many dissenters    Claims a Galileo-like heroic, heretic role

Andrew O. Lutes, Mansfield, Ohio  
Update on Satanism in Mansfield

To the Editor:

There is no evidence of Satanism's happening, but belief in it goes on. Enclosed is a class catalog from North Central Technical College (P.O. Box 698, Mansfield OH 44901-0698). It includes a class for professionals on dealing with victims of "Satanic cult abuse." Apparently there are those who still believe in Satanic cult abuse claims enough to want to spread belief in it to those who will be dealing with troubled youths— youths impressionable enough to be led into thinking that they were really abused by members of a secret network of Satanic worshipers.

My response to this will be cautious. I cannot afford to enroll in this course and observe it firsthand. I cannot boldly and openly attack it as that might endanger my employment and that of my wife. We may be dependent on employers whose world view requires the existence of demonic forces. What I think I will do is cautiously write to the course instructor

and to the college dean. I could diplomatically suggest they consider the lack of evidence for a network of Satanic cult abusers, and the evidence that the Satanic cult abuse paradigm is mistaken. Perhaps this will begin to encourage the final subsidence of Satanic fear in Mansfield. I will keep you posted.

Andrew O. Lutes, Mansfield, Ohio

Andrew Lutes, who has previously investigated the rise of belief in Satanism in the Mansfield area, enclosed the following course listing with his letter. The included listing is under the heading "Continuing Health Education," page 14.

"The Leader: Day, Evening, & Weekend Class Schedule, NCTC North Central Technical College" vol. 10, issue 3, spring, 1994. The brochure states that NCTC is "Accredited/State-Assisted/Veteran Approved."

Advanced Occult Practices. New!

Dates: June 8 and 9 (Wednesday and Thursday)

Time: 9:00 a.m. to 4:30 p.m.

For: School/pediatric/psych nurses, social workers, child care workers, children services, foster parents and any interested health care or law enforcement professionals are encouraged to attend[.] Prerequisite attendance at Clinical Response to Satanic Worship - aka Satanic Cult Victimization Part I, mandatory

Speaker: Dr. Linda Pope

Site: Comfort Inn North, Mansfield

C. E. hrs: Nurses 14.4 cont hrs, social workers 12, all others will receive attendance certificate

Fee: \$130 (lunch provided each day)

Registration deadline is May 25.

Course number: N00493-4159

Global Warming: Facts, not Myth

To the Editor:

Whether a significant global warming in the future will be a fact or a mistaken projection I do not know, but it definitely is not a myth. At the present time it is a hotly contested scientific topic, at the cutting edge of research, and thus not an issue for this group. Here is what we do know:

Precise measurements of carbon dioxide (CO<sub>2</sub>) in the atmosphere have been monitored only since 1958 at Mauna Loa on Hawaii. Since that period CO<sub>2</sub> has increased from 315 ppm (parts per million) to about 355 ppm. There is an annual seasonal variation of about 5 ppm as the summer growth in the northern hemisphere draws down the carbon content of the atmosphere.

Water vapor in the atmosphere and CO<sub>2</sub> intercept outgoing infrared radiation and thus slow energy from returning to space. These have been called the major greenhouse gases, because they act like a blanket keeping the earth's surface warm. There are lesser green house gases (methane, nitrous oxide) which are also measured as increasing.

Since the beginning of the industrial revolution we have burned a large quantity of fossil fuels, returning the carbon to the environment, most of it as CO<sub>2</sub>, to the atmosphere. Additional carbon has been liberated by the cutting of forests; in the mid-latitudes in the past, in the tropics at present,

We cannot account for all the carbon estimated to have been freed since the industrial revolution. The single largest pool of carbon is in the earth's crust, some 65,500,00 Gt (gigatons--A gigaton equals 1 billion metric tons) in carbonate rocks. The second largest pool is carbon in the world ocean, some 39,000 Gt. Compared to these magnitudes the annual quantities exchanged from atmosphere to ocean and back by solution (70 - 90 Gt) or by photosynthesis (110 - 120 Gt) are small. Yet these quantities dwarf the annual CO<sub>2</sub> liberated by burning fossil fuels (some 5 - 6 Gt) or by forest cutting (some 1 - 4 Gt). Trying to trace the added quantities in the carbon cycle amounts to tracing a needle through a haystack.

With firm knowledge in short supply all global models of the atmosphere make some assumptions about the increase in carbon and its consequences. The technical reports on these studies clearly state the uncertainties and assumptions and point out their consequences.

The best averages of measured global temperatures show an increasing trend of about one-half degree Celsius

between 1880 and 1940, a decline by .2 degree to 1960, and a further increase of .4 degree since then. Since the typical day shows a spread of about 10 degrees, we can appreciate that estimating the global trend is sorting a signal from a lot of noise. There is general agreement that we have not (yet) measured a clear signal of warming.

I have a great deal of sympathy with former President Bush's refusal to do anything about "global warming" in the face of uncertain knowledge. I am also very aware that many of my colleagues disagree and have concluded that it is high time we start cutting down on releasing carbon to the atmosphere. There is no disagreement in the scientific community that we may be facing a problem, that careful monitoring of all variables must continue and be improved, and that research must go forward on all fronts. -- Wolf Roder, Cincinnati, Ohio

Wolf Roder is a member of the faculty of the Department of Geography at the University of Cincinnati.  
Editorial Policy

In January, 1994, the Executive Council adopted the following standards for articles submitted to Cincinnati Skeptic. Articles accepted for publication in Cincinnati Skeptic shall meet the following standards: 1) The article shall be of interest to skeptics. 2) The article shall be signed. 3) A reading list shall be submitted with the article. 4) Each article shall include (not necessarily in this order): an introduction, a presentation of the author's own view of the topic and evidence supporting the author's position, a presentation of other points of view and evidence supporting the author's contention that these views are in error, a summary. 5) All articles shall be subject to comment by other writers. 6) No article shall be assumed to represent an official position of A.R.T.

In addition, the editor requests that articles be no longer than 1000 words (4 double-spaced typed pages).  
Executive Council, 1994-95:

President, Roy Auerbach; Vice-President, Bob Riehemann; Treasurer, Dick McGrath; Membership, Donna Loughry; Investigations Officer, Joe Gastright; Newsletter Editor, Virginia Jergens; Newsletter Layout Editor, Peter Jergens; Newsletter Production Manager, Brad Bonham; Media Resources Coordinator, Lance Moody; Meeting Organizer, Mary Pacinda.

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