

**OF THE WEEK**

Instantons: Something from nothing	228
Vision and brain hormones	228
Human-ape differences put into perspective	229
"Drowned" trees point to new glacial stage	229
Zeroing in on disease magnetically	230
Look ma, no heart disease	230
China to build accelerator	230
Mammal temperature control	231
The pill's possible positive side effect	231

**RESEARCH NOTES**

Biomedicine	232
Physical Sciences	232
Behavior	233

**ARTICLES**

Crib death: New leads, new puzzles	234
The search for superheavy elements	236

**DEPARTMENTS**

Letters	227
Books	239

**COVER:** Giant halo 19A (bottom) on mica from Madagascar is one of those used in original Florida State University study as possible evidence of superheavy elements in the central inclusion. On the same piece of mica is a normal halo 19B caused by uranium-thorium radioactive decay. (The halo of 19B seems large only because of its large central inclusion; the halo ring width is normal size.) See story of search for superheavy elements p. 236. (Photo: R. V. Gentry)

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**LETTERS**

**In their estimation**

The Joel Greenberg article on est (SN: 1/14/78, p. 27), while informative, neglects to mention a critical need in any outcome studies — the use of a control population. Kirsch and Glass, in discussing their seven cases of psychiatric breakdown following an est training session, emphasize the need for controlled research to test their hypotheses. As clinicians they are more interested in the psychodynamic processes involved, but are very much aware of the need for carefully designed evaluation. Ornstein and his group are also very cautious in presenting their survey data, pointing out that the results were based on unevaluated self-reports with no comparable control group. Undoubtedly, some people will improve after the training, some will remain unchanged and some will get worse. The numbers in each category can only be determined by a controlled experiment.

We might note for comparative purposes that on the basis of national statistics one would expect a first-time hospitalization rate for psychiatric disorder of about one per thousand per year in a randomly selected population. Ornstein found 2 cases in his sample of 1,500, while Kirsch and Glass reported 4 hospitalizations from a population of unknown size consisting of est graduates in the San Francisco area.

*William J. Horvath  
Ann Arbor, Mich.*

The article on est contains an example of the most crucial predicament in contemporary science writing: How does one report phenomena which are outside the reporting paradigm?

Classically the new is interpreted in terms of the old. When Einstein announced  $E=MC^2$ , Newtonian physicists regarded it as impossible, although Einstein suggested many times that relativity was a new paradigm in physics.

No matter how many times authorities describe est as a new paradigm of experience, est is described scientifically in terms of previous paradigms. Light could not bend in a Newtonian universe, but light bends. The value that people receive from est isn't possible in traditional psychological models of experience. Yet people experience enormous value in the est training.

In their paper on est in the AMERICAN JOURNAL OF PSYCHIATRY to which SCIENCE NEWS referred entitled "Psychiatric Disturbances Associated with Erhard Seminars Training," Drs. Kirsch and Glass clearly stated that "the est organization is explicit in not representing itself as a psychotherapeutic endeavor." In an unpublished essay erroneously accredited to the

NIMH, Stolz and Baer state, "We offer no explanation of this aspect of est here, because we do not understand it."

We submit that like listening to opera with a telescope, the inappropriate tool has been applied to the task of analyzing est.

The body of available research indicates that genuine comprehension of est requires a new paradigm of experience. Can we afford the arrogance to proceed in our lives as though there are no realizations beyond our traditional systems of scientific concepts, the experience of which would not utterly transform the quality of our lives?

The issue is not merely paradigms of investigation and paradigms of reporting. The issue is nothing less than humanity's responsibility for using science wisely in the conduct of human affairs.

*Victor Gioscia, Ph.D.  
Kenneth Anbender, Ph.D.  
Robert Larzelere, M.D.  
Jerry Joiner, M.D.  
San Francisco, Calif.  
est Public Information Office*

Est by Joel Greenberg presents a picture of est training as threatening, punitive and dangerous. Although Greenberg's concern is understandable, his concept of est is in striking contrast to my own experience of the compassion that is shown by both trainers and trainees. Real compassion is related to communication. Both require a willingness to see things as they are. As children, many of us are taught to act considerate; then later in life we get so busy with the "acting" that we fall down on the "seeing." When a truly compassionate person does not conform to our act we may also fail to see the compassion. Thus, I suspect Greenberg's view reflects the prevalent tendency to mistake sympathy and flattery for real compassion.

*Enoch Callaway, M.D.  
San Francisco, Calif.*

As an est graduate, I enjoyed reading the article on est by Joel Greenberg. I continue to find articles by nongraduates interesting exercises in explanation that I, too, may have attempted before the training. Let me suggest as a follow-up article that Mr. Greenberg interview psychologists and psychiatrists who have taken the est training. It would also be interesting to include statistics on how many non-est graduates in 100,000 experience psychotic symptoms to compare to the numbers of newly psychotic est graduates.

*Lyle B. Smith  
DeKalb, Ill.*

**Correction:**

The story on paraquat poisoning (SN: 4/8/78, p. 212) should have read "...NIDA estimates that 16 million people smoked pot during the last 30 days."

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