

SCIENCE

Right on: SRI researchers' targets and Geller's telepathic responses to them

No Guesswork

Parapsychology is the fledgling science (or pseudo science, depending on one's point of view) which explores such phenomena as telepathy, clairvoyance, psychokinesis and precognition. In the past the critics of parapsychology have usually outshouted its supporters, but in recent months the trend has been running the other way (Newsweek, March 4). Last week, the field of parapsychology took a major step toward further respectability with the publication in the prestigious and notably conservative British journal Nature of a new paper on ex-trasensory experiments. "In publishing the paper," said Nature editor David Davies, "we are serving notice to the scientific community that there is something here worthy of their scrutiny.

The experiments published in Nature were conducted at the Stanford Research Institute in Menlo Park, Calif., by laser physicists Dr. Harold Puthoff and Russell Targ. They involve two psychics: 27-year-old Uri Geller, who for the last year has been displaying his paranormal abilities on television talk shows, and 55-year-old Pat Price, a former Burbank, Calif., police commissioner.

a series of carefully controlled exments, Geller was locked in an accustically shielded room. His task was to seetch his impressions of "target" pictures that were randomly selected by scientists in a nearby room. In two instances his drawings bore only a vague symbolic resemblance to the target, but when the target was a suspension bridge, Geller drew a remarkable abstract version of it. And his impressions of a bunch of grapes, a camel and a seagull in flight were amazingly accurate. The SRI researchers calculate that the odds against Geller's performing as well as he did are more than 1 million to one.

In a more difficult experiment, conducted before a group of scientists and filmed by a camera to check for any sleight of hand, Geller on eight successive occasions correctly called the uppermost face of a die that had been shaken in a steel box (again, a million-to-one shot).

ESP: Despite the precautions taken by the scientists to prevent cheating, the experiments involving Geller have many critics. Martin Gardner, a mathematics writer for Scientific American, argues that Geller (who was a stage performer in his native Israel) is "so skillful a magician that only another magician, and not a group of scientists, can determine whether Geller uses trickery or not."

Ex-cop Pat Price had parasensorily to "see" locations in the San Francisco area that were visited by researchers, while he remained locked in a shielded room at SRI. His impressions of buildings and the natural landscape were accurate

against odds of about 2,000 to one.

Even so, the publication of the paper by Nature does not put a final seal of approval on the SRI work—or place it above all challenge, whether of possible fraud on the part of the two psychics or of oversights on the part of Puthoff and Targ. "What we are saying to scientists," says Nature's Davies, "is: Here is what has been done in the name of science. Here are the accusations. Now go back and have another look."

The Smoke Detective

In the aftermath of any major fire in Salt Lake City, 46-year-old Irving Einhorn can usually be found poking around in the rubble, picking up strips of scorched clothing, pieces of charred wood and distorted chunks of plastic. Unlike most of the buffs who follow the fire engines, Einhorn has a professional interest in the smoldering remains. He heads the University of Utah's Flammability Research Center, and his gruesome souvenirs, together with computerized records that contain details on more than 12,000 Salt Lake City fires, are the raw materials for a concerted scientific effort to reduce the toll of fires.

The primary goal of the Utah center, whose staff includes organic chemists, physiologists, toxicologists, neuropathologists and plastic surgeons, is to understand just how fires start, spread and kill their victims. The center's areas of investigation include the effects of season, climate and time of day on the probability that fires will occur in specific locations; the sequence in which different materials ignite; and the mechanism whereby smoke can maim or kill. The need for such detailed research is pressing. The U.S. now has the highest per-capita rates of death and property loss from fire of all the world's major industrialized nations: there are 12,000 deaths, 300,000 injuries and \$3 billion in property damage each year. Yet at present basic research into fires is minimal.

Kill: The lethal effects of such neglect were pointed up in an investigation by the center into the flammability of fabrics. This showed that some blends of synthetic fibers and cottons used in permanent-press garments can be virtual deathtraps if they catch fire. In one experiment, a shirt consisting of 80 per cent polyester and 20 per cent cotton was totally destroyed by fire in fifteen seconds. As a result of the center's findings, Einhorn has lobbied for legislation to require that garments woven from such materials must be treated with fire retardants. In fact, the fourteen major U.S. synthetic-fiber producers have spent more than \$20 million during the past year on research and development of materials with lower flammability

Other studies by the Flammability Research Center suggest that smoke can kill more quickly than flames. One dramatic example occurred three years ago in a fire in a Salt Lake City nursing home.

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