PEAR Lab Closes, Ending Decades of Psychic Research

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The Princeton Engineering Anomalies Research (PEAR) group is shutting down after some twenty-eight years of searching for proof of the paranormal. On February 10, 2007, PEAR issued a press release that stated, in part: "The PEAR program was established at Princeton University in 1979 by Robert G. Jahn, then Dean of the School of Engineering and Applied Science, to pursue rigorous scientific study of the interaction of human consciousness with sensitive physical devices, systems, and processes common to contemporary engineering practice. Over the next twenty-eight years, an interdisciplinary staff of engineers, physicists, psychologists, and humanists has conducted a comprehensive agenda of experiments and developing complementary theoretical models to enable better understanding of the role of consciousness in the establishment of physical reality."

If it has been the long-term goal of the PEAR group to be featured in the mainstream literature, then they have finally achieved their goal. The imminent closure of the PEAR laboratory has been commented upon in both *The New York Times* (Carey 2007) and *Nature* (Ball 2007). The Canadian Broadcasting Company (CBC) featured a long and sympathetic interview with the director of PEAR, Professor Robert Jahn, on February 27. There are no plans by Princeton to continue to support work in this area. The university administration has maintained a discreet silence about the PEAR group and its remarkable research.

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The startling claims of the PEAR group fall into the broad category of parapsychology, specifically psychokinesis (moving objects with the mind) and remote viewing (extrasensory perception). However, the PEAR team avoids terms such as *psychokinesis* and *telekinesis* in favor of less provocative terms such as *anomalous transfer of information* and *anomalous injection of information into the data stream.* The PEAR group has recently published a summary of the first twenty-five years of their work (Jahn and Dunne 2005). A critical analysis of some of the PEAR claims has recently appeared in this journal (Jeffers 2006).

Much of the work of the PEAR group has employed "random event generators" (REGs), which are essentially electronic random number generators whose "operators" are invited, by dint of their own intentionality, to bias in such a way that the mean of the random number distribution would be either higher or lower than it would be in the absence of their intentional efforts. The claim is that some "operators" can achieve a bias consistent with their intentions at a level that, although minute, is statistically very unlikely to have arisen by chance.

In his CBC interview, Professor Jahn stood fervently by his claims and said that he would repeat this long effort "in a heartbeat." He remains convinced that his work reveals something profound about the nature of mind and matter. However, it is somewhat telling that, despite this long record of experimentation, very few in the academy have been convinced of the validity of the claims. Most of the work has been reported in the *Journal of Scientific Exploration*, a periodical specializing in claims for all kinds of physical, biological, and parapsychological anomalous effects. Two papers have appeared in more mainstream journals, the *IEEE* (back in 1992) and *Foundations of Physics*. The attitude of most of the academy has either been immediate rejection without a close examination of the evidence or simple indifference. One notable exception is the support offered to the PEAR group by one Nobel Laureate in physics, Brian Josephson. One waggish editor did offer to publish a PEAR paper "if it could be transmitted telepathically."

The work of the PEAR group does raise larger issues for the academy concerning academic freedom. Princeton, to its credit, has recognized Jahn's freedom to pursue a controversial area despite the obvious discomfort of some of the faculty, particularly in the physics department.

As with any other claim, the veracity of PEAR's claims will finally be settled by time-honored methods of science—and demand reproducibility. Here PEAR has a significant problem. To its credit, PEAR did engage two other groups of researchers at two different German universities in a three-way attempt at validating the claims. However, none of these groups—including PEAR itself—was able to reproduce the claimed effects.

Furthermore, as has been previously pointed out, there are some problems with the calibration data of PEAR's REG. As far back as 1987 (Jahn and Dunne) the PEAR team claimed that the performance of their REGs when no one was invited to influence them showed a distribution that was better than Gaussian. This effect was dubbed "baseline bind." It was attributed to

the *unconscious* actions on the part of "operators" to please the experimenters (how one can test for *unconscious* intentionality is unclear). However, the baseline data reported later over a long period exhibits a trend that is unlikely by chance at the p=.05 level. This was the level of statistical significance previously employed to claim a significant effect. I have argued that the later data exhibit baseline bias and hence the REG over the long term is not generating random numbers as claimed. This has to call the basic claims into question.

Although the PEAR lab will be no more, work in this area is expected to continue under the auspices of the International Consciousness Research Laboratories, a not-for-profit public foundation. One suspects that, without the cachet that attaches to the Princeton name, this group will have an even more difficult time convincing the skeptical community.

References

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Snake-Oil Traders

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Gillian McKeith

"The practice of medicine is an art, not a trade; a calling, not a business." It amazes me over and over again how this rather obvious statement by Sir William Osler, written a century ago, is so overtly ignored in complementary/alternative medicine (CAM) today. Many columnists who use the British media for informing the public about the virtues of CAM do so, I suspect, because they are financially profiting from it.

The ethics of advertising in medicine have been hotly debated for decades. The British Medical Association has traditionally been against a liberal stance, arguing that people who seek medical advice are vulnerable to exploitation. Thus the extent to which doctors advertise their services is subject to fairly tight restrictions. The guidelines of the General Medical Council (GMC), the governing body of doctors in the United Kingdom, state that the information doctors publish must not make unjustifiable claims, offer guarantees of cures, or exploit patients' vulnerability or lack of medical knowledge. The GMC also insists that doctors declare any relevant financial interest. If doctors do have interests in organizations providing health care or in pharmaceutical or other biomedical companies, these must not affect the way they prescribe for, treat, or refer patients. Most medical organizations across the world have adopted similar rules.

One only needs to watch television or read a newspaper to get the impression that, in the realms of CAM, such regulations are not often followed. For instance, Gillian McKeith, the author of a bestseller on nutrition, gives medical advice to families addicted to seriously misguided diets in her British television series called *You Are What You Eat*. A laudable task, one might think. But one does not need to look far to see that a whole range of health foods and supplements are commercially available under McKeith's own label. Conflict of interest? Hard to deny, I think! So why does the GMC not remind her of a doctor's responsibility? The answer is simple: contrary to what one might think after watching her show, she is not a medical doctor.

Neither is the "Barefoot Doctor," though for many years he wrote on health matters for *The Observer* and simultaneously marketed a range of medicinal products. Does the lack of a medical title absolve these people from ethical behavior, or does the way

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