

## When research goes PEAR-shaped



There should be room for a bit of fringe science - but it's liable to suck you in.

Philip Ball

It can't do much for your self-esteem when the media get interested in your research because it is shutting down. But Robert Jahn and Brenda Dunne of the Princeton Engineering Anomalies Research (PEAR) laboratory probably aren't too bothered by that. For the attention generated by this week's closure of the PEAR lab — or rather, by the suggestion in the New York Times that this removes a source of embarrassment to the university — can surely only enhance the profile of Jahn and Dunne's vision of exploring "consciousness-related anomalies".

What anomalies, exactly? Jahn and Dunne carefully avoid calling the phenomena they have studied for more than two decades by their more familiar names: telekinesis and telepathy. What they have studied, they say, is "the potential vulnerability of engineering devices and information processing systems to the anomalous influence of the consciousness of their human operators" — that is, people's ability to control machines using only the power of their minds.

Jahn, now an emeritus professor, is a former dean of Princeton's school of engineering and an expert on electric propulsion. He and Dunne, a developmental psychologist, closed the lab themselves, as Jahn is about to retire. "We have accomplished what we originally set out to do 28 years ago, namely to determine whether these effects are real and to identify their major correlates," they said in a press release. They hope that young scholars from the International Consciousness Research Laboratories, a network established in 1996 and now boasting members from 20 countries, will carry on their work.

But the work itself is full of worrying statements. In a paper called "The PEAR Proposition"<sup>1</sup>, published in the *Journal of Scientific Exploration* (published by the Society for Scientific Exploration, of which Jahn and Dunne are officers), the Princeton duo talk about "the tendency of the desired effects to hide within the underlying random data-substructures" and say volunteers would often produce "better scores" in initial tests. This echoes the way that researchers in other areas of fringe science, such as cold fusion and the 'memory of water', betrayed their lack of objectivity with talk of 'good' runs and 'bad' ones.

Jahn and Dunne are commendably honest about the "bemusing" and "capricious" nature of their measurements, but that only adds to the impression that they decided they were engaged in a battle of wits with nature, who did her damndest to hide the truth.

That doesn't mean, of course, that the findings aren't genuine. But perhaps, in science, that's not enough. With effects this slippery, can you do science at all? And what happens if you try?

### Know your limits

The affair has ignited debates about the limits of academic freedom and responsibility. The New York Times quotes physicist Robert Park of the University of Maryland, a noted debunker of pseudo-science, as saying "It's been an embarrassment to science, and I think an embarrassment for Princeton", whereas physicist Will Happer at Princeton says "I don't believe in anything [Jahn] is doing, but I support his right to do it." (The university itself is trying to keep out of the fray, saying they gave Jahn the room to pursue his "personal interest", but that, like many other researchers, he obtained the funding himself.)

Some will surely share Park's view that this sort of thing gives science a bad name. But they'd be wrong to let the matter rest there, because PEAR's research reveals some interesting things about the practice and sociology of science, and what happens to scientists when they dabble in the 'paranormal'.

Reasonable scientists cannot rule out the possibility of telekinesis, telepathy and other such 'anomalies' of the mind, simply because there are still huge gaps in our understanding of consciousness and the brain. But most will say that because all previous attempts to study these putative phenomena have failed to establish anything like a consistent, reproducible and unequivocal body of data, the chances of doing any serious science on the subject are minimal.

As John Webster said of witchcraft in the seventeenth century: "There is no greater folly than to be very inquisitive and laborious to find out the causes of such a phenomenon as never had any existence."

### Will-o'-the-wisp

Experience teaches us that these things, from N-rays to cold fusion and homeopathy, are will-o'-the-wisps: too elusive for fruitful research, and probably imaginary, if not downright fraudulent.

Perhaps a stronger reason why scientists usually steer clear of such things is that it can amount to professional suicide. In "The PEAR Proposition", Jahn and Dunne describe the hostility they experienced at Princeton. They found "covert ridicule ... grudging concession of academic freedom, and... uneasiness in public discussion of the subject."

And they found it virtually impossible to publish their findings. Their papers, many of which reported the effects of subjects' mental and emotional states on a computerized random-number generator, were returned with the comment that they treated an "inappropriate topic". One editor said that he would consider the text only if the authors transmitted it telepathically, they report<sup>1</sup>.

It is perhaps no wonder, then, that academics who dive into these murky waters tend to be older and already established in mainstream disciplines. Such people have earned themselves a bit of academic slack (as well as the ability to attract funding), and don't risk the exclusion that younger researchers would face.

All the same, a lack of peer feedback removes the normative force that might otherwise prevent researchers from going down some pretty strange tracks. You start off with random number generators and unimpeachable experimental technique, and before long you are talking about "an ongoing two-way exchange between a primordial Source and an organizing Consciousness".

It would be a poorer world that castigates and shuns any researcher who dabbles in unorthodox or even weird ideas. But the PEAR literature is sobering reading for anyone thinking of doing that. It shows just how these things can suck you in.

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## References

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1. Jahn R. G. & Dunne B. J. J. Sci. Explor., 19. 195 - 245 (2005). [Link](#)