

# From Parapsychology to Spirituality: The Legacy of the PEAR Database

## SPIRITUALITY: THE HIDDEN LEGACY OF PARAPSYCHOLOGY

When the Society for Psychical Research (SPR) was founded in 1882, one of its declared aims was to counter and combat scientific materialism through the use of scientific means. Eminent figures such as William James, Carl Jung, and Sigmund Freud were members and sponsors of SPR activities. At that time SPR members thought that by studying spiritism and paranormal phenomena, they might deliver proof of the spiritual nature of man, and that matter and physical theory alone cannot account for the richness of our experience. The huge studies, case collections, and data produced by the SPR must be considered scientifically flawless by any standard. The scientific thoroughness adopted by its members in their efforts to anticipate and deflect objections from critics was nearly masochistic.

Were they successful? Obviously they were not. Science marched its own way, trumpeting its favorite tune “Matter is All, and We Will Show You Why.” The scientific community stomped any evidence to the contrary into the ground—such as that produced by the SPR—thereby making the ground seem a bit more stable. The parapsychological movement retreated into an academic niche. It adopted even more stringent scientific experimental methods in the task, producing replicable outcomes.

## MODERN PARAPSYCHOLOGY AND MAINSTREAM SCIENCE

However, perhaps because of overattention to the minutest of details in parapsychological experiments, the larger picture and meaning of parapsychology seems to have been lost. What have modern parapsychology researchers achieved? Have their accomplishments surpassed those of the founders of SPR? Have they proved, to

the satisfaction of skeptical scientists, that consciousness is a separate and agentlike reality—not just a by-product of matter—and that it has a direct effect on matter, or if not, that these questions are worthy of investigation?

According to several criteria of conventional, mainstream science—the number of parapsychology-related papers published in top-tier journals, the number of university departments that explore such topics, and the number of scientists who achieve a fruitful research career in these areas—the answer is no. Mainstream science simply ignores these issues and dismisses positive findings as artifacts and anomalies. We (H.W., W.J.) have both attempted to publish positive findings from solid experiments that argue simple points and have almost invariably encountered rancor and rejection. In one instance, three years of battles with referees and editors finally culminated in a brave editorial decision in favor of a publication arguing that if science is to progress, the parapsychology database must not be ignored.<sup>1</sup> This position applies, if we are to build a comprehensive worldview.

Why is the scientific community so reluctant to engage the findings of the Princeton Engineering Anomalies Research (PEAR) lab? This information has been painstakingly amassed over three decades. It is accompanied by sound theoretical analyses. The PEAR investigators have invented and pioneered novel methods and have established what is debatably the longest lasting, most consistent, productive research program that has ever existed in parapsychology. Is the obstinate resistance of conventional science due to sheer dogmatism? Malevolence? Ignorance?

Or were the PEAR researchers less effective than they might have been in communicating their results and countering criticism? Were the PEAR researchers too

enthusiastic about the validity of their own data? We suggest that all these factors may have played a role in the resistance the PEAR project encountered.

## THE PEAR LAB EXPERIENCE AS A MODEL CASE

Several important questions arise from the PEAR work:

1. Is there a direct effect of mind or intention on matter in the first place? Does consciousness influence matter “out there,” as suggested in the experiments in which operators tried to influence a sequence of random numbers generated by an electronic device?

The answer to this seemingly simple question is both yes and no, depending on how *effect* is defined. In mainstream science, an effect, to be real, must display three characteristics: (a) stability, (b) independent replicability, and (c) a sound and accepted theoretical framework. When measured by these criteria, the PEAR findings do not qualify as a valid, genuine effect. Although the PEAR lab and also others were able to replicate their effects frequently, it was not possible to replicate the effect in the largest independent multisite effort ever attempted.<sup>2</sup> Ironically, there was an effect, but not in the predicted variable—mean shift—but in a shift of the variance and other parameters.<sup>2-4</sup> However, given the rules of science, that is irrelevant. Also, we do not have a viable model of how such effects might occur in the first place. True, there are a few efforts at understanding mind-matter interactions,<sup>1,5</sup> and they make one decisive point: these phenomena are likely not signals in the standard sense. Their stability and replicability are elusive, as in the shift of parameters in the biggest random event generator study from mean shift to a change in variance, as mentioned. It will

take some time to integrate these models and find ways of testing them.

The PEAR lab experience has been one of the most valuable roads leading to our current understanding, limited though it is. It is unfortunate that these pioneers have not been accorded greater recognition. But often in science, it is not those who initially chart the territory and build the roads that reap the treasures but those who come later, unfair as that may be.

Others interpret the PEAR findings differently. If one's worldview already includes the likelihood of mind-matter interaction, then the random event generator data may be considered an affirmation of that view. But one should bear in mind why the rest of the scientific world disagrees.

2. Is the scientific community capricious and dogmatic in dealing with the PEAR findings?

Emphatically, yes. All direct mind-matter interactions are a threat to current science because no theory can accommodate them. As a consequence, scientists are reluctant to accept evidence that conflicts with accepted theory, even though that evidence might be true. How might this dilemma be resolved? A model along the lines of quantum entanglement is the best candidate theory at the moment.<sup>5</sup>

Many critics continue to claim that the PEAR findings are fiction or experimental artifacts. An example is the recent meta-analysis of attempts to mentally influence random number generators by Bösch and colleagues.<sup>6</sup> Much, though not all, of the data going into this analysis is from the PEAR lab. This critique concludes that the evidence for direct mind-matter interaction is equivocal, and that publication bias may have played a role—that is, smaller studies producing negative effects may not have been published, resulting in a false impression that mind-matter effects are real. The mainstream picture is salvaged, it appears.

Is publication bias a valid criticism? Probably not. Although it makes sense to argue that the positive results seen in the small studies were produced by a very few but highly gifted operators, it is unreasonable to assert that they would be offset by hugely negative studies that went unpublished.<sup>7</sup> Why, then, did a respected journal such as *Psychological Bulletin* not identify these potential flaws in reasoning in

the random number generator analysis it published? Probably because the journal editor did not know a competent parapsychology researcher/reviewer familiar with the data and research methods in this field. The resulting conclusion was that there is no direct interaction between mind and matter. This conclusion is perhaps wrong, but it is the one that currently is easiest to sell and communicate to the scientific community, since it is accepted already. Once such a conclusion is published in the peer-reviewed literature, it is exceedingly difficult for dissenters to correct it, since no journal likes to admit that it has made mistakes in the first place.

3. Did the PEAR researchers effectively communicate their story?

A major aspect of science is communication, which involves repetition. Reiterate a fact long enough and it becomes a truth. An example is the widespread belief that germs are *causes* of illness. This ignores the alternative view that a defect in the immune system can be the cause of a disease, and that germs simply make this defect obvious. Similarly, the real cause of a car accident may have been the loose steering wheel, but it was the bump in the road that unmasked the defect and is wrongly considered the cause. In our opinion, communication from the PEAR lab was probably not the problem. The authors were prolific writers, as the articles in this issue attest, and they continually targeted mainstream journals. One might have wished them greater success in doing so, but top-tier journals are demanding, even fickle. High quality is a necessary—but not a sufficient—factor for the acceptance of a paper for mainstream, high-profile journals. In any case, just as “one swallow does not a summer make,” it is doubtful whether acceptance of any of the PEAR publications by top-tier journals such as *Nature*, *Science*, or *Physics Review Letters* would have made a significant difference. An interlinked research program would have been necessary, in which groups around the world investigated these controversial phenomena and published their findings independently, thus establishing a new current in the scientific world. Beyond that, a viable theory was needed that not only explained the effects but which also predicted them consistently. It is probably unfair to demand that a single research group shift an entire scientific paradigm. Princeton Engineering Anomalies Research paved the

way for a future shift, and this is a magnificent contribution.

## THE FUTURE: SPIRITUALITY, CONSCIOUSNESS, AND HEALTH

A pragmatic rule for authors and orators alike is that if the audience you are addressing is not interested in your message, find another group to talk to. Princeton Engineering Anomalies Research addressed the basic science community, such as physicists, engineers, and chemists.

Parapsychological research originally involved the attempt to communicate to both the scientific community and the world at large the importance of spirituality and consciousness. We suggest that the resumption of this mission is the logical next step for the parapsychological community. Within medicine, spirituality has already become a major issue. Centers have emerged that explore spirituality and its connection to health. The Samuelli Institute, one of the larger foundations researching the mechanisms of healing, has begun a strategic initiative on spirituality and healing. Mindfulness-based methods have captured the imagination of even hard-nosed, cognitive-behavioral therapists and mechanistic-functionalist psychologists. They are being used by hundreds of thousands of patients to alleviate intractable medical problems.<sup>8</sup> So, here is the metamorphosis of a scientific topic: the issue of spirituality and the question whether a materialist philosophy is sufficient has reemerged within other more pragmatically oriented compartments of science and society at large.

We therefore believe the legacy of PEAR is secure, albeit in a somewhat different way than the original researchers may have imagined. This issue of *EXPLORE*, a premier outlet for innovative research in complementary and integrative medicine, is an excellent venue for what is not really an end but a beginning—the discovery of the importance of consciousness and the various ways it influences our world—to which the PEAR lab is a vital witness.

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