

[First appeared in the Bardian, Spring 2002 issue]

### My Kingdom For A Theory

What a piece of work is a man! What fools these mortals be! Scientific knowledge is wonderful (the majority opinion, and mine) but it is produced by humans practicing a mode of inquiry called Science. One finds greatness and folly in the species and in the individual. This leads to events, associated with the introduction of new ideas, which can provoke laughter or tears. Before turning to such events let us observe the following:

Science, the mode of inquiry, has served us well and is rather constant. But scientific knowledge is constantly changing. Most of what was believed in the past was later discarded or amended. A recent dramatic case is that of the experiments negating the proposition "nothing travels faster than  $c$ , the speed of light in a vacuum". It is my belief that many propositions now held to be true will be blasted in the future, and it is amusing to speculate on what some of them might be.

We all know about Galileo and the Catholic Church- We may know that Einstein made what he called "the greatest blunder of my life" when he introduced a fudge factor into general relativity simply because he could not accept its prediction of an expanding universe. (Hubble discovered the red shift, confirming expansion, a few years later). What may be less generally known is the long history of new scientific ideas being rejected by scientists. In the case of the great inventor Thomas Edison the rejection extended to ideas that had already been put into practice: "why should I travel nine miles to see something that I know cannot exist" (electric lighting). This kind of rejection appears to be temporary, but its duration depends on the case. One hears it said that "a lot of people will have to die (a natural death, of course) before this idea is accepted", and one hears of an occasional self-aware scientist who says "I'm too old to understand this".

Many alert children have observed, looking at a globe, that South America and Africa would fit nicely together. In 1912 Alfred Wegener published two papers reporting his many findings of identical geological records in places separated by large distances. He showed that if the continents had in the past been differently arranged, those currently separated places would have been close together. He suggested that continental drift was more likely than any other explanation of the facts. His papers were derided by the majority of geologists and what is worth noting here is their thought process [A]:

"I don't see any way in which the continents could have moved, therefore (implicitly) they did not move". It is now generally agreed that the continents did move, and by a comprehensible process (plate tectonics).

I have an oral report from a friend that at the Key West Literary Seminar (Jan. 2001) devoted to science writing, three Nobel Laureates (in science) warned the audience to resist believing any claims that paranormal phenomena exist. I cannot be certain of the thought process but my guess is that it resembles the one mentioned above: "I don't see how such phenomena could exist, therefore they don't exist." Such a thought process, obviously faulty, is in conflict with a principle which seems self-evident: "If fact and belief system conflict it is the belief system which must be altered."

It is certainly the case that paranormal phenomena (psi) cannot be accounted for by current scientific knowledge. This state of affairs was recognized in the 18th century by one Maimonides (not Moses) [B]:

"His Society gathered data for 15 years but finally dissolved itself with the statement that although their data had fully convinced them of the reality of the phenomena they were investigating, collecting more data was pointless, since nothing resembling a theory was anywhere on the horizon."

To anyone who doubts the existence of paranormal phenomena I would suggest that there are more things in heaven and earth than are dreamt of in his philosophy. I would also suggest he launch his web browser, bring up the search engine Google, and type the search term "parapsychology". This will not produce a proof, but the quality and quantity of the search results may at least temper skepticism. There is now a large body of parapsychology research (mainly experimental findings) published in peer-reviewed scientific journals.

The lack of a theory is a serious obstacle to research, and to acceptance. It is written somewhere that early in the 20th century Eddington wrote "No experimental result should be accepted until it has been confirmed by theory". The body scientific will accept new facts if they can, actually or potentially, be usefully thought about using existing theoretical concepts, but it has an immune system which rejects other facts. Prior to Planck's invention of the quantum (which he thought of as a purely mathematical artifice) nobody doubted the measured black-body radiation spectra, even though current theory produced a totally discordant result (the ultra-violet catastrophe) according to which the power radiated by a black body is infinite. It seemed certain that sooner or later a better theory would emerge. But for psi we have only a few brave but unsatisfying attempts at a theory.

What are the prospects for developing a theory of psi? Until recently, bleak. However, as the result of work done by 1955 Bard graduate Tom Etter [C], the prospects may now (September 2001) be slightly improved. Etter has invented and applied Link Theory to interpret Quantum Mechanics, with good results. One of his findings is that classical (Markovian) and quantum states, the only states known to current physical theory, are special states (distinguished by certain symmetry properties) and that there are (in Etter's theory) many other states. If these other states exist in nature they will probably have some strange properties. Strange, that is, compared to quantum states, which themselves seem quite strange (to most of us). It may be that some of these strange properties are connected with psi and that Etter's theory will enable us to think usefully about psi. Were this to happen it would be the first significant step towards making sense of a class of phenomena which the science establishment has found difficult to digest.

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[A] Morgan, Elaine "The Scars of Evolution", pp: 50, 160.

[B] Etter, Tom "Theories of Psi", ANPA West Vol. 7 No. 1, Sept. 1997. The primary source is somewhere in the psi literature but unfortunately not available to this writer.

[See [www.boundary.org/bi/theoretical.htm](http://www.boundary.org/bi/theoretical.htm) or <http://boundary.org/bi/EtterPubs.htm>.]

[C] Etter, Tom and Noyes, H. Pierre "Process, System, Causality and Quantum Mechanics: A Psychoanalysis of Animal Faith", Physics Essays volume 12 No. 4 1999, pp. 733-765.

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