Lessons From History

"Crackpots" Who Were Right IV: Conclusion

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Abstract

This is the fourth and last instalment of the series entitled "crackpots" who were right. It is a collection of my postings at <u>http://blog.vixra.org</u>. The scientists covered in this series are the scientists whose work eventually led to a paradigm shift in their discipline and in several cases the work was recognised with a Nobel Prize, though not always for the scientists who made the initial breakthrough. For every scientist who makes such a major advance in science there are many others who take smaller steps. Undoubtedly there must be many other independent scientists whose work was so completely rejected and ignored that it never garnered any recognition and has long been forgotten. Science suffers through such neglect and that is why we think viXra.org is so important.

Key Words: crackpots who were right, conclusion.

I have been posting a blog series about scientists who were called "crackpots" but eventually turned out to be right. There is a convenient archive of the posts under the tag <u>crackpots-who-were-right</u> in case you missed any of these fascinating stories. I could carry on the series forever, but I want to do other things so I'm going to conclude it with this last post.

If I had continued I would have gone on to tell you about Barry Marshall who got the Nobel Prize after showing that stomach ulcers are caused by a bacterium rather than stress as everyone believed. He found it so difficult to convince anyone that he eventually drank a petri dish of the bacteria to prove it. I also wanted write a bit about Robert Chambers who wrote a popular book about evolution before Darwin. He was ridiculed by biologists for his misuse of terminology but the public were won over and he paved the way for acceptance of Darwin's theory while much of the scientific establishment held on to creationism. I also never got round to the famous case of Hannes Alfvén another Nobel laureate who faced ridicule when he realised that plasmas and magnetic and electric fields are important in galactic physics, not just gravity as everyone else believed. Nor have I mentioned Subrahmanyan Chandrasekhar who showed that stars above a certain size would eventually collapse to form black holes at a time when others did not believe they could really exist. The lambasting he got from Eddington almost ended his brilliant career. Then there was Joseph Goldberger who showed that Pellagra is a disease caused by dietary deficiency but for political reasons his opponents continued to claim it was infectious. Others on my list are William Harvey for blood circulation, Doppler for light frequency shifts, Peyton Rous for showing viruses can cause cancer, Boltzmann, Dalton, Tesla, Alverez, Margulis, Krebs, and on and on. All of them had to fight against resistance before their ground breaking work gained the recognition it deserved.

But so what? What can we draw from this? Some people have commented that these people were not real crackpots. They worked as real scientists and had ideas that just took time to establish. They are not like the people who turn up in physics and maths forums with crazy ideas that have no

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respect for hundreds of years of progress ins science. Furthermore, our "crackpots"-who-wereright are a tiny minority compared to all the ones who were wrong.

I disagree with these points. Firstly, these people really were treated as crazy and were subjected to ridicule or were ignored. The cases described here are the extremes. There are many more who have merely had an important paper rejected. In fact it is hard to know the real extent of the problem because only the most important stories get told in the history of science. My guess is that these people represent the tip of a large iceberg most of which lies hidden below the threshold it takes for historians to take note.

Furthermore, even if the "crackpots" who were right are the minority among all "crackpots", they are still the most significant part. It is better to create an environment in which these people can have their theories recorded for the sake of the few who are right, than to try to dispel them all because of some irrational fear that they disrupt real science.

And, even amongst those who have really crazy ideas there will be the people like Ohm who also have some valid ideas hidden underneath. No amount of peer-review or archive moderation can reliably separate the good ideas from the bad. The only solution is to allow everyone to have their say and to record it in a permanent accessible form. Some people ask me why I expect scientists to wade through so many papers looking for something they find worthwhile. The answer is I don't. Work of no value will be ignored while useful ideas will be found by someone doing related research who finds it through keyword searches or other means. Even in the academically run archives there are vast numbers of papers that will never be cited or read by many people. Scientists find out about new ideas through citations, seminars, conferences, word or mouth, etc.

I hope that some people at least will read this series and get the point about why we run the viXra archive with an open policy that allows any work on scientific topic to be recorded. I can't say that some future Nobel Prize winner will be among our deposits, but it is not impossible. More likely there will be lots of smaller good ideas that move science along in less dramatic steps, but that is the way most science is done.