

# **The Eclipse Data From 1919: The Greatest Hoax in 20<sup>th</sup> Century Science**

**By Richard Moody Jr.**

## **Preface**

The Gulf War was predicated on the concept of overwhelming superiority. In other words, the Allies didn't resort to the minimum number of troops and support personnel to do the job. They vastly exceeded the minimum. Science is war. This paper is predicated on the principle of overwhelming scientific superiority. A similar approach was used by Woodward and Bernstein when they took on the Nixon White House. They didn't just get enough information to get the job done, they went beyond that. It is believed here that the need to overwhelm the reader is a sad necessity brought about by the corruption and derogation of science that has taken place in the previous century.

## **Abstract**

Prior to 1919, general relativity was an obscure theory by a rising star in physics, Albert Einstein. Based on the perceived need to test this complex and intriguing concept, it was held as gospel that the sunlight passing by the sun should be bent by the gravitational attraction of the sun, something known to Sir Isaac Newton and modified by Einstein. According to prevailing wisdom, this should be observable during a total solar eclipse when the shielding of the sun's light permitted the observation of light from distant stars being "bent" around the sun.

In an effort to play the role of peacemaker and kingmaker, Arthur Eddington traveled to Principe in Africa with the express purpose of proving Einstein right. Prior to that, he was an advocate for Einstein, due, in part, to the fact that both men shared the same political beliefs, Pacifism. In his zeal to be both peacemaker and kingmaker (Eddington wanted to be known as the man who discovered Einstein), Eddington engaged in corruption and derogation of the scientific data, the scientific method, and much of the scientific community. To this day, this completely manufactured data set is quoted by

prominent scientists and the organs of publication. It surpasses the Piltdown Fraud as the greatest hoax of 20<sup>th</sup> and 21<sup>st</sup> Century science.

## **Introduction**

Hero worship may seem harmless to some; in the case of Einstein, it has had disastrous consequences for the scientific community. Let us start with perhaps the worst cover up and brewing scandal, science has seen in the 20<sup>th</sup> and 21<sup>st</sup> Century. I am referring to the Hoax of 1919, otherwise known as the eclipse data from 1919, hereinafter called the “Eclipse”. Einstein’s dubious science led other scientists to disgrace themselves for the express purpose of proving Einstein right about general relativity. It is almost unimaginable to ponder just how bad “reputable” scientists are when it comes to understanding the limitations of scientific instruments, the limits of the physical conditions under which data is collected and a complete lack of understanding of the logic behind the various predictions for the deflection of light. These scientists don’t appear to understand what the scientific method is or how to apply it.

According to Graf, strong models are like crude filters, readily admitting data consistent with the theory and systematically rejecting data inconsistent with the theory. This results in a feedback loop between the corrupted and derogated data to the strong model. They reinforce each other. This has been the case for general relativity. It went from an obscure concept from a somewhat obscure scientist, to the reigning paradigm overnight, dominating thinking in theoretical physics over the past half century. “Strong models corrupt weak men and women.”<sup>1</sup> “The desire to conform, is almost as strong as the desire to create.”<sup>1</sup> Strong models discourage free and independent thought. Where wealth, power and prestige come into play, they serve as club to beat back promising alternatives. General relativity is just such a model.

I have also drawn the analogy between strong models and the queen bee syndrome.<sup>1</sup> The first official act of any queen bee when she recognizes what she is, is to immediately kill off any potential rivals. This is how strong models operate. Consider this observation from Ian McCausland, “In spite of the fact that the experimental evidence for relativity seems to have been very flimsy in 1919, Einstein’s enormous fame has remained intact,

and his theory has ever since been held to be one the highest achievement of human thought. The resulting deification of Einstein has had some unfortunate effects: critics of his theory are often dismissed as cranks, and the search for better theories has been inhibited. It is suggested that the announcement of the eclipse observations in 1919 was not a triumph of science as it is often portrayed, but rather an obstacle to objective consideration of alternatives.”<sup>2</sup> “Einstein’s enormous and enduring fame resulted directly from the announcement of the eclipse results, although the results were not particularly accurate”<sup>2</sup> This final sentiment is shared by Sir John Maddox Editor Emeritus of *Nature Magazine*.<sup>3</sup>

“Because of the euphoric veneration of Einstein and relativity in November 1919, the objectivity with which science is supposed to act has been inhibited. Canonization, deification, and claims of personal communications from Nature, should have no place in science. If the findings of the eclipse expeditions had been announced as being inconclusive instead of decisive in 1919, general relativity would have had to compete with other possible theories...”<sup>2</sup>

“It is also reasonable to ask whether the rapid and strong entrenchment of the general theory that occurred as a result of the eclipse announcement may have led experimenters to obtain the ‘right’ answers from their observations, as suggested in the above quotation from Sciama.”<sup>2</sup> Strong models corrupt the data.

This failure to recognize and promote alternatives to existing paradigms in astrophysics is so severe that 33 prominent scientists have found it necessary to decry the state of funding there.<sup>4</sup> Want money? Just come up with some new way to “test” general relativity. Want to test other theories? Forget it; you won’t get funding. Existing models drive funding in this country because the old guard benefits in terms of wealth, power and prestige by promoting the status quo. There is tremendous scientific inertia today, and, as a result, it is getting progressively more difficult to break ties to a comfortable past.

Let us put things in historical perspective: As of 1919, General Relativity was an obscure theory of a rising star Einstein. The Quaker, Eddington, approved of Einstein’s political leanings i.e. both men were Pacifists and Eddington thought Einstein was a genius. He is reputed to have said, “Only three people understand general relativity, and

for the life of me, I don't who the third one is." As fallout of the Eclipse, "Einstein awoke in Berlin on the morning of November 7, 1919, to find him self famous."<sup>5</sup>

So Eddington set out to Principe in Africa in 1919, with the express purpose of proving Einstein right. No supporters of Einstein appear to be fazed by the fact that Eddington was an advocate for Einstein, not some objective scientist. Eddington took his role as the great peacemaker and kingmaker very seriously. He attempted to calm the antipathy British and German scientists shared ("It was not without international significance, for it opportunely put an end to wild talk of boycotting German science."<sup>5</sup> Later Eddington said, "By standing foremost in testing, and ultimately verifying the 'enemy' theory, our national observatory kept alive the finest traditions of science; and the lesson is perhaps still needed today"<sup>5</sup>).

In other words, if you can get others to buy into bad science, it is, "...in the finest tradition of science". Eddington engaged in the corruption and derogation of science that persists to this day, and he had the arrogance to tell others that this is, "in the finest tradition of science." According to the great Indian astronomer Chandrasekhar, "had he been left to himself, he (Eddington) would not have planned the expeditions since he was fully convinced of the truth of the general theory of relativity!"<sup>6</sup>

Paul Marmet has done a marvelous job showing the fundamental hypocrisy of Eddington. This clearly qualifies Eddington as one of the worst scientists in all of 20<sup>th</sup> Century science because he has polluted the main stream of science for almost a century, and, like the Pied Piper of Hamelin, led the rats to the sea. "Although the material was very meager compared with what we had hoped for, the writer (who it must be admitted was not altogether unbiased) believed it convincing."<sup>7</sup>

"We will see also how the stars distribution was not good enough for such measurements to be convincing. Finally, we will discuss how Eddington's influence worked for Einstein's full displacement and against any other result."<sup>7</sup>

Also in the Marmet article: "Eddington was deferred with the express stipulation that if the war should end by May 1919, then Eddington should undertake to lead an expedition for the purpose of verifying Einstein's predictions!"<sup>7</sup> You will note that he said, "verifying", not testing.

This begs the question: What is science? According to Sakharov<sup>8</sup>, “We regard as ‘scientific’ a method based on deep analysis of facts, theories and views, presupposing unprejudiced, unfearing open discussion and conclusions.” How does this have any relevance to the Eclipse? Was there any adherence to any of these principles? Einstein completely waffled as far as how he came up with the values he obtained for the purported values of the deflection of light, Eddington promptly cooked the data, and the supporters of Einstein have attempted to portray dissenters to any of Einstein’s theories as crackpots.

The number of “reputable” scientists who have bought into this whole farce looks like a Who’s Who of prominent scientists. For example, Eddington completely bamboozled the Royal Society and the Royal Astronomical Society at his triumphant talk he gave to them. “Sir Joseph Thomson, President of the Royal Society and Chair of the meeting, strongly endorsed the results.”<sup>5</sup> It does not appear that any scientists present actually looked at the photographic plates (the whole affair was more like a coronation rather than a scientific presentation e.g. Pais stated, “...the day on which Einstein was canonized.”<sup>9</sup>)

## **Pathological Science**

These Eclipse photographic plates were supposed to show that starlight was bent by the sun as the light passed by it during a total solar eclipse. The predicted Newton Deflection was supposed to be .87 arc seconds and the Einstein deflection, a totally ad hoc amount, was supposed to be 1.73 arc seconds. Unfortunately, the effect was so small it is impossible to detect accurately even with the strongest modern telescopes under ideal conditions. This is the true meaning of “pathological science” as defined by Langmuir.<sup>10</sup> Unlike cold fusion which has been demonstrated to produce heat, reliably, in a short period of time and high energy particles<sup>11</sup>, the same cannot be said of the Eclipse data.

Cromer said it best with regard to pathological science, “Real discoveries of phenomenon contrary to all previous scientific existence are very rare, while fraud, fakery, foolishness, and error resulting from overenthusiasm and delusion are all too common.”<sup>12</sup> Isn’t this a great description of the Eclipse data! Physicists have branded

cold fusion as pathological science. Let's see how they like having the Eclipse data defined as pathological science!

What do eclipse researchers do? In a vain attempt to prove that Einstein was right, they "measure" minute changes beyond the capabilities of their equipment, the physical conditions that they encounter or their recording device, the photographic plates. This is truly the type example of pathological science. "This is not a problem, as we will show that the deflection is certainly not measurable"<sup>7</sup>

What is clearly evident is that the expedition to Principe in Africa was doomed to failure before Eddington set foot there, because neither the equipment nor the conditions permitted precisions necessary to distinguish between the Newtonian Deflection and the Einstein Deflection. "The error caused by the atmospheric turbulence is large enough to refute any measurement of the so-called Einstein effect."<sup>7</sup>

"Eddington's overenthusiastic advocacy may perhaps be explained by his prior conviction that the theory was true and by his interest in saving something from the vast work of the Principe expedition." "But one retains the suspicion that besides these reasons, there was, especially for Eddington, another: the hope that a British verification of Einstein's theory would force on British scientists a more open-minded and generous attitude towards their German colleagues."<sup>13</sup>

## **Skeptical Inquirer**

However, when it comes to fraud, fakery, overenthusiasm, and delusion, Cromer should start with his own journal, the *The Skeptical Inquirer*. They maintain that they are, "The magazine for science and reason". In a special edition, they compare Einstein to Jesus Christ and Moses!<sup>14</sup> On the cover, they morph a picture of Einstein on the left to a man with a halo on the right, obviously intended to be Jesus Christ. So this great bastion of "reason" has swallowed hook, line and sinker all the cockamamie misinformation from

Big Physics without any skepticism whatsoever. They are great at debunking others. Why don't they start by debunking themselves?

They have even portrayed Einstein as Moses in a cartoon on page 34 with a finger coming out of a cloud pointing to writing on a stone tablet that reads, "And God said let there be light".<sup>14</sup> Just like Moses, Einstein got a stone tablet. Einstein is seen writing the equation  $E=mc^2$  on a chalkboard.<sup>14</sup> The clear implication is that Einstein was inspired by God when he came up with the equation. This is the first time I have heard Poincare described as God!

What the editors of the *Skeptical Inquirer* don't seem to realize is this: Einstein did not originate the equation.<sup>15</sup> He did not derive it.<sup>16</sup> He did not originate the idea of the conversion matter into light.<sup>17</sup> At least seven scientists came up with the idea of converting matter into energy or light before Einstein.<sup>18,19</sup> He did not originate the conversion factor  $c^2$ .<sup>(18,19)</sup> The equation as written is wrong.<sup>20</sup>  $E$  is proportional to  $mc^2$  not equal to  $mc^2$ .<sup>(20)</sup> Einstein violated the conservation of energy law when he has a candle emitting a wavelength of light and gaining mass at the same time.<sup>20</sup> Aside from that, the editors of SI are absolutely right in claiming that Einstein got his inspiration from God.

## Mensa Bulletin

*Mensa Bulletin* published a pro-Einstein article on  $E=mc^2$ <sup>(21)</sup> called, "The Human Story Behind  $E=mc^2$ ". The book is called, " $E=mc^2$  A Biography of the World's Most Famous Equation."<sup>22</sup> The book is said to be, "Superbly Researched" by the Dallas Morning News<sup>22</sup>. This book is a very well researched novel. Of course, Mr. Bodanis missed all the information missed by the *Skeptical Inquirer*.

In a typical act of puffery, the introduction to the Bodanis article stated, "...he paints a series of colourful pictures of the heroes of science who paved the way for Einstein's amazing leap of intellect."<sup>21</sup> What precisely did these "heroes" of science do that was heroic? Catch a piece of chalk before it fell to the ground and shattered or save an equation from a burning building? Now for the, "...amazing leap of intellect". He read

and understood the papers by Poincare and Newton. Where were the editors of the *Mensa Bulletin* when Bodanis was writing this balderdash?

Why did Mr. Bodanis get so much wrong about  $E=mc^2$ ? The following statement from his book provides a very telling clue, “Einstein and his wife had given away their first child, a daughter born before they were married...”<sup>22</sup> Isn't that positively innocent? Don't all parents give away their children when they run into financial difficulties? Here is another way to characterize the facts, “Einstein fathered an illegitimate child he abandoned.” Same set of facts, different spin. Bodanis chose the former which is an indication that this was going to be a soft hitting book.

## **Scientific American**

What was the precision Eddington was claiming with primitive equipment, operating under extremely hostile conditions with agile stars on a mobile, fault riddled photographic template?  $1/100^{\text{th}}$  of an arc second. Apparently, this doesn't bother the Editors of *Scientific American* who have reaffirmed the accuracy and precision of the Eclipse data.<sup>23</sup> SA provides a nexus of science with the intelligent lay public. Wouldn't one expect caution by the Editors of SA when they know there is a controversy about the quality of the Eclipse data? The title of the article in question is, “Did Researchers Cook Data from the First Test of General Relativity. Rumors of data mishandling in an historic eclipse study don't jibe”.<sup>23</sup>

With this simple observation, SA has given its stamp of approval to the lowest quality data probably in the history of science. This raises serious doubts about the integrity, credibility, competence and objectivity of SA editors. They appear to be little more than shells for Eddington and indirectly for Einstein. If they misinform their readers, then they contribute to the vast amount of scientific illiteracy plaguing America.

We are told in this article, “...who discovered that Royal Observatory staff in Greenwich had reanalyzed the Sobral data in 1978 using modern computer-based methods.”<sup>23</sup> My goodness, they plan to use a computer to turn a sow's ear into a silk

purse by magically repealing the laws of astronomy! Somehow, with, "...modern computer-based methods"<sup>23</sup>, we are going to take data not even precise to one arc minute and convert this into data with a precision of 1/100<sup>th</sup> of an arc second! Aren't computers wonderful! They can provide you with any answer you want.

The allowable precision is probably on the order of several arc minutes. In other words, the precision was read by Eddington and SA to perhaps one thousand X- ten thousand X that permissible from the various sources of errors. This is fully in keeping with the work of the British Institute of Precise Physics who maintain, "They used **10 second exposure cap cameras, accurate to less than one 25<sup>th</sup> of a degree.**"<sup>24</sup> (Bold face from original text. The authors are referring to the errors introduced by the earth's rotation).

Although there was an attempt to deal with this problem, what kind of machinery would it have taken to exactly match the rotation, "so that the mirror could be rotated to compensate for the rotation of the earth during a time exposure, instead of rotating the telescope, which was not feasible under the conditions of the eclipse expeditions."<sup>24</sup> The resulting uncertainty of exactly matching the rotation of the earth to the machinery could have introduced poorer precision of over several arc seconds. This is just one source of error.

## **Time Magazine and Stephen Hawking**

This now brings us to Sir Stephen Hawking. Professor Hawking did not exhibit the kind of decorum one would hope to get from a Nobel Laureate and heir apparent to Einstein. Professor Hawking had a fiduciary responsibility to provide the public with unbiased, factual information, so that they can understand and appreciate the work of scientists. Professor Hawking was in the powerful position of battling a fatal disease all the while being a cherished figure within the public and is held in high regard by physicists, an icon.

(two paragraphs removed at author's request – Sepp)

Here is what Hawking said in his book, *“A Brief History of Time From the Big Bang to Black Holes*, on page 32, with regard to the Eclipse data, “Their measurement had been sheer luck, or a case of knowing the result they wanted to get, not an uncommon occurrence in science. The light deflection has, however, been accurately confirmed by a number of later observations.”<sup>25</sup> (Not according to Sir John Maddox, Editor Emeritus of *Nature Magazine*.)<sup>3</sup>

Then in his *Time Magazine* article, Hawking on page 79 stated, “It was confirmed in spectacular fashion in 1919, when a British expedition to West Africa observed a slight shift in the position of stars near the sun. Here was direct evidence that space and time are warped, the greatest change in our perception of the arena in which we live, since Euclid wrote his *Elements* about 300 B.C.”<sup>26</sup>

Apparently, Professor Hawking “forgot” what he wrote in his book when he wrote his article for *Time Magazine*. Professor Hawking gave *Time Magazine* editors exactly what they wanted to hear: First Einstein came up with this obscure theory and just like that, the data flowed seamlessly and the theory was confirmed. Nothing could be further from the truth.

Did *Time Magazine* staffers do a fact check of the Hawking article or did they just give him a pass? Perhaps if they were a little more concerned about doing research instead of puffing up Einstein, they might have discovered the discrepancy between the Hawking book and the Hawking article.

What possible motive could Hawking have for these three versions of the same event? The first two repudiate the data from the Eclipse. The third supports it, and thus validates support for general relativity. Who benefits by promoting Einstein's general theory of relativity? Professor Hawking is heir apparent to Einstein and thus stands to benefit the most from puffing up Einstein. He has a conflict between promoting himself and promoting science. Which did he choose?

As a direct result of this puffery, physicists no doubt rubbed their hands in glee when Einstein was named, "Person of the Century". They could look forward to getting their research grants approved as far as the eye could see. Say the phrase, "You're no Einstein" in public and you can put a dollar into the pocket of every physicist in the country.

Einstein is not a man; he is a product being marketed to the American public like tooth paste and deodorant. He is a brand name with as much name recognition in science as Coke and Pepsi have in the soft drink industry. He is an advertiser's dream. He is a cash cow, a rainmaker, the 800 pound gorilla that gets fed first, and the sugar daddy of Big Physics. Hebrew University also makes 7 figures every year promoting Einstein goodies like bobble head dolls. He is an industry unto himself. That is the motive for Hawking to falsify events concerning the Eclipse in order to maximize wealth, power and prestige for Big Physics.

*Time Magazine* had only one shot to maximize their profit from their manufactured story, the "Person of the Century" issue. Would they have sold as many copies of their magazine with Franklin Roosevelt on the cover? I'm sure every retiree who cashes their Social Security check or fills out their Medicare forms, thanks God for Einstein's general theory of relativity. Did *Time Magazine* poll likely buyers to see which choice would maximize their profits? All I know is that when I requested a copy of the "Person of the Century" issue, they were sold out. Would they have sold out the issue with Franklin Roosevelt on the cover of the magazine? Who is *Time Magazine's* master? The public good? Or the stockholders of Time-Warner?

## David Levy

How is it possible that the astronomer Dr. David Levy was totally unfamiliar with the limitations of the precision of the Eclipse data? As an astronomer and a public figure, like Professor Hawking, he has the fiduciary responsibility to provide accurate, unbiased information to the American public. This is what Dr. Levy said in the Millennium Milepost #8 interview broadcast on “Arizona Illustrated”<sup>27</sup>. Here is an excerpt from that broadcast:

Levy: It was the end of the World War I but I think it actually goes back a bit to what you were saying about how humanity is moving forward, we’re exploring. That eclipse was a very interesting cultural moment. A man, Sir Arthur Eddington, an English astronomer decided to run a little experiment. You see, there was this unknown physicist named Albert Einstein and he had come out with a theory years earlier. This theory was that mass and energy were equivalent, a very astonishing theory,  $E$  equals  $MC$  squared. He said that part of that can be tested where you have a body that is very strong, that has a huge amount of gravity, so much so that it can actually bend the space around it. The energy going through that space would actually be bent. Now, this was just something that philosophers would discuss, like how many angels can you put on the head of a pin? And Einstein had made this theory. There’s no way of proving it, so it stays as theory. Eddington said oh, no, we can prove it, because we can observe a star very close to the sun and measure if its light has been bent because of the gravitational pull of the sun, as Einstein had predicted, then we’ve got something. Then Einstein has rewritten the laws of physics.”<sup>27</sup>

Bill: (Interviewer) “So all of this culminated then in 1919.

Levy: In 1919. Now we can’t normally observe a star when it is close to the sun. The sun swamps it out. During the eclipse of 1919, they observed the star. They took photographs of that star. They developed the film in a darkroom, came out with the measurement that

proved Einstein was correct. And so one, the person working in the patent office in Switzerland had suddenly rewritten the laws of physics and redefined our existence in the universe. That's why 1919 was so important<sup>27</sup> (This was not just one bad night for Dr. Levy. He made similar observations in *Parade Magazine*.)

According to Dr. Levy, it only takes one corrupted and derogated data point to prove a theory correct. This is the same man who is providing a public face to the scientifically illiterate, the average American.

## **PBS**

PBS did a marvelous job with Mileva Maric, Einstein's first wife, except for one minor glitch. PBS allowed a diehard supporter of Einstein, John Stachel, to misinform the public. He claimed that Mileva Maric was just a "sounding board" for Albert and apparently she didn't have a single original thought in her head. Here is Albert in his own words, "I am so lucky to have found you---a creature who is my equal, and who is as strong and independent as I am."<sup>28</sup> She sounds like a real sounding board, doesn't she? Here is another example of Mileva doing her, "sounding board" impression. Albert: "I am also looking forward to working on our new studies. You might continue with your investigations---how proud I will be to have a little PhD for a sweetheart while I remain a completely ordinary person."<sup>29</sup>

## **Einsteinisms**

An Einsteinism can be defined as the perturbation of language or perception in order to put a positive spin on some aspect of Einstein's life. It may include distortion, omission, falsification, or corruption of the historic record in order to promote Einstein.

From Clark<sup>5</sup>, we are told, "Even in form and style (the special relativity paper) it was unusual, lacking the notes and references which give weight to most serious expositions." Einstein was writing internet quality papers before the internet was invented. Of course

Big Physics has bought into this calling Einstein's 1905 papers, the "Miracle Year". Never mind that the papers were agenda driven, plagiarized, internet quality papers that should have died in the review process. To physicists, this is a miracle. I wonder how responsible scientists would view them.

What did Albert think about himself and his work? "There have already been published by the bucketfuls such brazen lies and utter fictions about me that I would have long since gone to my grave if I had let myself pay attention to them."<sup>30</sup> "It strikes me as unfair and even in bad taste to select a few individuals for boundless admiration, attributing superhuman powers of mind and character to them. This has been my fate, and the contrast between the popular estimate of my powers and achievements in reality is simply grotesque"<sup>31</sup> "With fame I become more and more stupid, which is, of course, a very common phenomenon."<sup>32</sup> Even Einstein was aware of the tremendous puffery around him.

What is not generally recognized in the scientific community is that towards the end of his life, Einstein repudiated his life's work. On his death bed as a scientist, Einstein made a "death bed" confession (A scenario held as a highly significant legal statement). Here is what Pais<sup>33</sup> said about Einstein towards the end of Einstein's life, "As Einstein's life drew to a close doubts about his vision arose in his mind. 'The theory of relativity and the quantum theory...seem little adapted to fusion into one unified theory,' he remarked in 1940 [E34]. He wrote to Born, probably in 1949, 'Our respective hobby-horses have irretrievably run off in different directions...Even I cannot adhere to [mine] with absolute confidence' [E35]. In the early 1950's, he once said to me that he was not sure whether differential geometry was to be the framework for further progress, but it was then, he believed he was on the right track\* To his dear friend Besso he wrote in 1954, 'I consider it quite possible that physics cannot be based on the field concept, i.e. continuous structures. In that case *nothing* remains of my entire castle in the air, gravitation theory included, [and of] the rest of modern physics' E[37]."<sup>33</sup>

Even when Einstein makes the worst blunder any scientist has ever made (this can only be equaled and never surpassed), the press manages to put a positive spin on it. With

respect to the Cosmologic Constant (CC), Einstein swore he was wrong when he was probably right!

The Cosmologic Constant was a totally ad hoc idea of Einstein's. He bought into the idea of a static universe and was concerned that gravity would collapse it into a point. So in order to keep the universe open, he came up with totally ad hoc concept of the CC, a mysterious anti gravity force that would keep the universe open. Along comes the data from the background radiation and just like that Einstein abandoned the CC because an expanding universe would obviate the need for antigravity to keep the universe open. Einstein promptly proclaimed that the CC was the worst mistake of his career.

What is the status of the CC today? According to some investigators<sup>34-36</sup>, the universe appears to exhibit signs of the universe accelerating instead of decelerating. This caused researchers to resurrect the idea of the CC. What caused Einstein to reject the CC? An expanding universe! What caused modern investigators to believe in the CC? An expanding universe!

There is a classic story of Einstein's father giving him a compass as a young boy. This allegedly sparked Einstein's curiosity in later life. I have a different take on the story. In my version, his father reversed north and south so Einstein could find his way home.

It is bad enough to swear you're right when you're wrong. It is a whole different kettle of fish to swear you are wrong when you are right. In any discipline except physics, this would be the most mortifying experience any scientist could possibly experience. In physics, however, it is considered a rite of passage.

The press claimed, "Einstein 'famously' abandoned the Cosmologic Constant". How about 'infamously' or 'absurdly' abandoned the Cosmologic Constant? Somehow, Einstein can make the worst mistake of his career, and the press can put a positive spin on it. They also put a positive spin on the Eclipse data claiming it had "astonishing precision". How about bogus precision or manufactured precision?

## **Precision**

One of the most profound abuses of the Eclipse data has to do with precision. In other words, how many significant digits is it possible to read the data? According to Eddington, it was possible to read the data to a precision of  $1/100^{\text{th}}$  of an arc second: this was also echoed in an article in the *Scientific American*<sup>23</sup> (see above). How small is  $1/100^{\text{th}}$  of an arc second? I would guesstimate that it is on a par with attempting to determine the width of a human hair with the unaided eye as seen from a distance of 10 feet. According to Ian McCausland, the difference on the edge of the photographic plate was the equivalent of  $1/100^{\text{th}}$  of a millimeter.<sup>2</sup>

Apparently, none of these scientists have one scintilla of awareness of the maximum precision the equipment and conditions allowed. First of all, the telescope used by Eddington, one physicist informed me, was about on a par with a telescope one could buy from Wal-Mart for under \$100. Second, the condition under which the data was collected was only slightly better than viewing the “bent” stars through an erupting volcano. It was  $97^{\circ}$  that day in Principe and  $75^{\circ}$  the previous night<sup>7</sup>. This exceeded the allowable temperature range over which the equipment was supposed to operate. Not surprisingly, the focal length of one of the telescopes changed, and a backup telescope was used.

When the moon passed in front of the sun, it shut down all incident radiation. This must have immediately caused a sharp temperature drop and instantly the ground and vegetation began to emanate heat. This caused turbulence in the atmosphere and the predictable response, the “dancing” of the stars on the photographic plates causing them to be “bent” hither and yon, some sideways, some backwards<sup>37</sup>. Naturally, this was attributed to accidental error. In other words, if the data supports the theory, it is “good” data, and if it doesn’t support the theory, it is called, “accidental error”. It is truly amazing how it is possible to get such random errors on the photographic plates that some stars move in totally unpredictable ways while others are bent just the right amount!

The 1922 eclipse was also used to support general relativity. Here is an excerpt from Jamal Munshi provided by Marmet, “Dr. F. Schneider of the Munich Observatory has published a paper (49) titled ‘The Einstein Shift An Unsettled Problem’ and a plot of

shifts for 92 stars for the 1922 eclipse shows shifts going in all directions, many of them going the wrong way by as large a deflection as those shifted in the predicted direction!”<sup>38</sup>

Bertolli, Brill and Krotkov, identify five sources of errors on the photographic plates: “1. Refraction of light in the Sun’s corona and/or in the earth’s atmosphere, 2. Distortions in the optical system caused by temperature changes during the eclipse, 3. Changes of scale between the eclipse plates and comparison plates, 4. Distortions in the photographic emulsion while drying, 5. Errors in measurements of the images on the plates.”<sup>39</sup>

One of the biggest problems with the eclipse data is that there at least five sources of error on the comparison plates. In order to tell if a star has been bent, it is necessary to compare it to a plate where the stars are away from the influence of the sun i.e. it is necessary to compare the “bent” stars to the stars before they are “bent”. This introduces significant errors in the process. Here is what Poor said about this: 1. Scale differences between two plates e.g. the plates are taken at different localities, at different seasons of the year, and under radically different atmospheric condition <sup>40</sup>, 2. “Different inclinations of the two plates to the optical axis of the telescope” 3, “Optical distortion of the lens system”, 4. “Inaccurate centering of the two plates”, 5. “Inaccurate orientation of the two plates during measurement. In the process of clamping the two plates to the reference plate, it will always happen that one is twisted a little in reference to the other”. <sup>40</sup>

So what is the allowable precision of the data considering the limitations of the equipment, the condition of the atmosphere, and the distortions within the photographic plates? “A 10 inch diameter telescope under perfect optics can resolve 1 arc second.”<sup>41</sup> “The earth’s atmosphere also refracts light, and because it is constantly moving, there is a blurring and jittering of images in a telescope. Astronomers call this ‘seeing’. Seeing actually dominates diffraction in most cases and usually limits resolution in practice to 0.5-2 arc seconds”<sup>41</sup>.

“Rare is the night (at most sites) when any telescope, no matter how large its aperture or perfect its optics, can resolve differences finer than 1 arc second. More typical at ordinary locations is 2- 3- arc second seeing, or worse.”<sup>42</sup>

What Eddington did to prove Einstein right was so ridiculous, it borders on the sublime. Here is what Eddington did to get the results he wanted according to Poor<sup>40</sup>, “4. Not a single expedition so far reporting has made a systematic study of all the data obtained. In the South American eclipse of 1919, less than 15% of the actual measured data was used in obtaining the announced result...All non-radial components of the actual measures were discarded as ‘accidental errors’.”<sup>40</sup>

That’s right: Eddington threw out over 85% of the data! If you throw out all the data that differs from the results predicted by general relativity, what remains, by definition, will be consistent with general relativity!

“7.The actual stellar displacements, when freed from all assumptions, do not show the slightest resemblance to the predicted Einstein deflections: they do not agree in direction, in size, or in the rate of decrease with distance from the sun.” “8.The actual measured displacements, if real, can best be explained by some refractive effect of the earth’s atmosphere: by a combination of the Courvoisier effect, of day-light refraction, and of temperature effects caused by the passing of the eclipse shadow.”<sup>40</sup>

The Alice in Wonderland properties of the data are well displayed, “...Trumpler, as in all of his other calculations and reductions, assumes the truth of the very law the eclipse data was organized to test. And he naturally finds that his results are best represented by the law from which they were obtained.”<sup>40</sup>

“Not a single one of the fundamental concepts of varying time, of warped or twisted space, of simultaneity, or of the relativity of motion is any way involved in Einstein’s prediction of, or formulas for the deflection of light. The many and elaborate eclipse expeditions have, therefore, been given a fictitious importance. Their results can neither prove, nor disprove the relativity theory: at the best their results can prove that light is retarded by gravitational action, and is retarded by a certain definite amount.”<sup>40</sup>

“But the actual results of the eclipse expeditions do not even prove this. Not a single expedition, so far reporting, has made use of effective checks or controls for eliminating the effects of temperature upon the instruments or for determining the possible effects of abnormal atmospheric conditions during the eclipse.”<sup>40</sup>

“An examination of the various tables of the deflections observed shows that many of them are far away from the quantities predicted. The quantity approximating the predicted one is obtained by averaging a selected few of the observations.”<sup>43</sup> “Any reader, though far from an expert astronomer or physicist, who will study the description of the apparatus used in these observations and the large margin of error possible by reason of defects therein, will readily comprehend that, in view of the required delicacy of measurement of the things observed of the observed phenomena, the greatest caution in the analysis of the results is necessary.”<sup>43</sup> This didn’t bother Eddington or other proponents of the Eclipse data.

Apparently, none of these scientists paid much attention to the fact that the data collected by Eddington was almost non-existent. “They are all good of the sun, showing a remarkable prominence; but the cloud has interfered with the star images. The last six photographs show a few images which I hope will give us what we need.”<sup>5</sup> “The cloudy weather upset my plans and I had to treat the measures in a different way from what I intended, consequently I have not been able to make any preliminary announcements of the result. But one plate that I measured gave a result agreeing with Einstein.”<sup>5</sup>

Here is what I think Eddington did: He worked backwards i.e. he “knew” what deflection he wanted, so he invented the correct length of deflection so that it created the results he wished to obtain. It is either that or he was completely incompetent as a scientist.

A basic concept that seems to be missing from the popular understanding of science is one of the most fundamental and well understood aspects of life: Survival of the Fittest. This repudiates directly the whole concept of the Ivory Tower image of the lay public. Scientists are just like every American. Some are good people; some are bad people. By some quirk of fate, the latter seem to have gravitated to theoretical physics. Their vicious, unfounded opposition to cold fusion and its practitioners, their extravagant and continuing puffing up of Einstein, and their insatiable appetite for multi billion dollar toys (hot fusion machines, neutrino detectors and particle accelerators to name three) siphon off limited funds from legitimate scientists; these are “bad” scientists and “bad” people.

This is what responsible scientists are up against: Survival of the fittest. If integrity does not get you wealth, power and prestige, then why have integrity? These scientists have learned from the maestro, Einstein. “I have never obtained any ethical values from my scientific work.”<sup>44</sup>

Some people might view this as paranoia. But as some wag commented, just because you’re paranoid doesn’t mean that they are not out to get you. As long as I am below the radar (I did get hammered in the blogs for my Einstein Plagiarism articles<sup>18,19</sup>), physicists will ignore me. If I am a threat to their acquisition of wealth, power and prestige, they will unleash the dogs of war where anything goes. This is the second shot I have fired across the bow of the HMS Big Physics, and I’ve got the iceberg on my side.

Here is what I am up against. This will resonate with LENR (Low Energy Nuclear Reactions aka cold fusion) investigators: From the website, “The Suppression of Inconvenient Facts in Physics: The Big Bang Scandal”; one will find the following introduction to the article, a statement by Brian Martin,

“Textbooks present science as a noble pursuit for truth, in which progress depends on questioning established ideas. But for many scientists, this is a cruel myth.

They know from bitter experience that disagreeing with the dominant view is dangerous—especially when that view is backed by powerful interest groups. Call it suppression of intellectual dissent.

The usual pattern is that some one does research or speaks out in a way that threatens a powerful interest group, typically a government, industry or professional body. As a result, representatives of that group attack the critic’s ideas or critic personally-by censoring writing, blocking publications, denying appointment or promotions, withdrawing research grants, taking legal actions, harassing, blacklisting, spreading rumors...<sup>45</sup> These scientists could give lessons to the White House “Plumbers”.

Does this sound familiar to LENR investigators? So we now have two entirely different disciplines in physics where the practitioners appear to have acted in a sleazy manner. As a reaction to this article, I predict we will see a third example. Three strikes and you’re out. The physics community will eventually see a razing of theoretical physics to the ground and the appearance of the next generation of physicists; the process-

dominated physicists, are about to replace the mathematicians in physics. This revolution is apt to be bloody.

One potential fall out of this article: We are about to see a schism in Big Physics over the next two years, where the applied physicists, men and women, who actually observe and measure real processes and promote concepts about the physical world, will stand in direct opposition to the theoretical physicists, who diddle in mathematics; these are people such as Albert Einstein and Stephen Hawking. The mathematicians who have brought us special relativity, general relativity, the Big Bang Theory, Black Holes and String Theory will cling to the Eclipse Hoax for dear life, for to abandon it now, would expose the soft underbelly of their dubious “science”.

Applied physicists will be furious with their peers for dragging them into this morass, and, as a result, being tarred with same brush impacting theoretical physicists. The Hoax of 1919 will ultimately prove to be a profound embarrassment to every physicist with integrity. The applied physicists will repudiate the theoretical physicists, because unlike theoretical physicists, they will know and understand the implications and significance of the accuracy and precision of data read during the Eclipse.

## **Summary and Conclusions**

Science connects the known to the known<sup>46</sup>; what we have in theoretical physics today is a castle in the sky, the mathematical universe, which has as its foundation in quicksand, the Eclipse data. The desperate attempt to provide a physical representation of general relativity has resulted in scientists acting in ways that they ought not to act. This includes the enthusiastic approval of the corrupted and derogated data from the Eclipse.

We have an entire class of scientists so bent on puffing up Einstein in a concerted effort to get a stranglehold on wealth, power and prestige, that they have overlooked the most basic pursuit of good science, the unbiased search for the truth. Theoretical physicists have substituted agenda driven “science” for real science, the unwavering pursuit of truth. According to theoretical physicists special relativity is settled science; 3789 papers critical of special relativity have been published, much to the ennui of Big

Physics<sup>47</sup>. This is what Big Physics means by settled science i.e. thousands of papers disagreeing with special relativity are just ignored.

Theoretical physicists are no strangers to agenda driven science. *Annalen der Physik* published five agenda driven, plagiarized, internet quality papers by Einstein in 1905; these should have died in the review process. Instead, we are being led to believe that this is the most profound accomplishment of any scientist in the 20<sup>th</sup> Century! No reputable editor today in any scientific discipline would touch the Einstein papers with a 10 foot pole. But these agenda driven, plagiarized, internet quality papers are being called the, “Miracle Year” by physicists!

The self delusion theoretical physicists have for the Hoax of 1919 challenges their competence to speak to the issue of science in general. They apparently lack the skill to distinguish real science from fantasy science. The question must be asked, “Why are we funding scientists who seem intent on promoting fantasy science, at the expense of real science and real scientists?”

The reader may wonder, “Why is a little icon worship bad? So it distorts the funding process a little? So what? Icon worship in this country is directly responsible for our failed energy policy and the implications that has for our National Security. When Einstein became famous, he served as a symbol of genius that spilled over into the general perception that somehow, only physicists were doing really good science. (According to Gleick some physicists think that the only revolutions in science of any significance in the 20<sup>th</sup> century are chaos, quantum mechanics and relativity.<sup>48</sup> Of course such things as the Genome project, pale in comparison.)

This distorts funding. Where this distortion has been disastrous for Americans is in terms of our energy policy. We have spent over \$15 billion dollar funding the Big Physics toy, the hot fusion machine. One minor problem with this machine: One of the primary fuels for hot fusion, tritium, costs \$1 million/ounce.

So why did we fund the hot fusion program? Physicists in the funding agencies managed to funnel billions of dollars of no bid contracts to their buddies at MIT. This was how Dick Cheney learned how to funnel no bid contracts to Halliburton. He learned it from Big Physics.

One of the first things on the agenda of Congress is to fire every physicist working for the Federal funding agencies or is a Federally funded public persona. These scientists have no business doling out contracts to their buddies in academia. Since physicists appear to have a chronic problem telling the truth, it is a bad idea to have physicists or astronomers like David Levy providing a public face to the scientific community, for if they do so, the American public will have a totally bogus idea of what good science is, what the scientific method is, or what good scientific research is.

Think about it. As a geologist, wouldn't I want to invest billions of dollars to harness geothermal energy? Incidentally, this would provide a whole lot of geologists with a good living. If I were a biologist, wouldn't I want to spend billions of dollars trying to create cellulose biofuels, or develop new ways to genetically alter algae to produce hydrogen in large quantities? If I were a chemist, wouldn't I want to spend billions of dollars developing better batteries that were cheaper, more efficient and longer lasting? Wouldn't I be interested in funding for new energy technologies and ways to make solar panels cheaper and more efficient? If I were an atmospheric scientist, wouldn't I be interested in placing large wind mill complexes on ocean platforms to generate electricity from large offshore complexes or in other desirable areas?

So why do we have a hot fusion program? Physicists convinced our wonderful leaders in Washington to have the best and newest toy on the block. Hot fusion is a boondoggle, pork for physicists, the Vietnam and Iraq of our energy policy. By the time (if ever) hot fusion machines come on line in quantity, say 1000, 1000 mW plants, global warming will be terminal. Aside from that, considering the huge R&D costs, the electricity from the first 100 plants will cost over \$1/kWh. When one factors in Murphy's law, the down time of the plants will be over 50%.

If the money spent on hot fusion had been divvied up to the other branches of the sciences starting 30 years ago as outlined above, and combined with more fuel efficient cars, better insulation, and conservation, we would have energy independence today.

Big Physics gave away a monopoly we had on LENR, by systematically demonizing, denigrating and demeaning LENR researchers by branding their research, "Pathological" Science. Big Physics quite clearly is acting against the National Security of our country.

They deliberately gave away our opportunity to develop cold fusion patents to France, Italy, Israel, South Korea and Japan, by systematically denying them to American inventors. The status of LENR technology today is that inventors can get excess heat, reliably on demand in a short period of time<sup>49</sup>. They even get high energy alpha particles with their LENR devices.<sup>11</sup>

If Big Physics was right about cold fusion being, “pathological” science, the worst that would have happened is that a few perpetual motion machines would have been patented. If they are wrong, they could cost America several hundred billion dollars in lost patent revenues over the next several decades. The enormity of what Big Physics has done to our country by making us beholden to Saudi Arabia, Iraq (in the future), to Venezuela and Nigeria is beyond belief. Big Physics, is, quite clearly, acting in their own self-interest at the expense of our National Security and our national interests.

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