## THE LATEST HOAX IN PHYSICS: Eric Weinstein



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Physics over the past couple of years has been very weird, but it just got weirder. Last night (May 23, 2013), Eric Weinstein gave a lecture at Clarendon Laboratory, Oxford University, presenting his Theory of Everything. He spoke at the invitation of Marcus du Sautoy, an Oxford mathematician who now inhabits Richard Dawkins' former position as the Simonyi Professor of the Public Understanding of Science. That position was created in 1995 by Charles Simonyi, a very wealthy tech guy from Microsoft, who oversaw the creation of Word, Excel, and Office, among other things. He "left abruptly" in 2002 to co-found Intentional Software Corporation. Without getting into what Simonyi is really up to with intentional programming, we already have red flags popping up all over the place here. As with <a href="Yuri Milner">Yuri Milner</a> and the Fundamental Physics Prize or Mike Lazaridis and the Perimeter Institute, we have a billionaire tech guy with strong ties to government "privately" funding university chairs, prizes, or research. As if that weren't enough to raise suspicion, we also see Richard Dawkins—a man who spends much more time doing PR than doing science—involved. And the same can now be said of Marcus du Sautoy, who, in his new position, is either a captain of public relations or of propaganda, depending on how honest you wish to be in your labeling.

Ask yourself if a major university really needs a "Professor of the Public Understanding of Science." Sounds Orwellian to me. We already have hundreds of glossy magazines and all the newspapers and many TV channels force-feeding the public a constant stream of science boosterism. Does Oxford University really require an endowed bullhorn of its own? Shouldn't straight reporting be enough? You would think correct science could sell itself on its own merits. Does science require such obscene levels of promotion? As a general rule, the less a product sells itself, the more salesmen you require.

Since we see the promotion of physics becoming louder every year, we must assume the product is failing.

The fact that Eric Weinstein is being promoted is also very strange. The worldwide media has published a barrage of extravagant praise of Weinstein recently, culminating in an exclamatory article today in the Guardian newspaper, London, which compared him to Einstein. Who is Eric Weinstein? Weinstein is a hedge fund consultant who also gives talks on math and physics. We are told he works for the Natron Group. Unfortunately, a websearch on the Natron Group yields nothing but a few yellowpages listings. Also curious is the name Natron. Why would a hedge fund company name itself after soda ash or baking soda, an old detergent before the 1950's? It looks like a joke name to me, coined by comedians in the intelligence community. This is a double red flag regardless, since we would expect a real company to be known to a Google search. But even if the company exists as something other than a CIA front, it is still a red flag since WHY WOULD WE TRUST A HEDGE FUND GUY? These bastards have just destroyed economies all over the world, and many of them are being investigated by the Justice Department. See the Libor Scandal and related scandals. See Matt Taibbi's recent exposés at Rolling Stone. We are in a worldwide financial meltdown due to speculation by these criminals, and yet we see them promoted as geniuses at Oxford and in London newspapers? How stupid does Marcus du Sautov think his audiences at Oxford really are? Promoting a hedge fund consultant at this point in history should be seen as professional suicide, and yet here we are.

Economists and bankers and hedge fund people have been proven to be a bunch of mobsters and conmen, so why would we expect them to have any real answers in physics? Shouldn't we expect them to be conmen here, too? If the audiences at Oxford had even a jot of residual sense, they would have booed both du Sautoy and Weinstein off the stage. The best thing Oxford could do is give Simonyi back his endowment and tell him to take his ministry of science propaganda somewhere else. But since Oxford is now little more than a ministry of propaganda itself, don't expect to see that happen.

Despite the fact that the *Guardian* allowed du Sautoy to write his own hagiography of Weinstein, the enshrinement appears to be falling flat. Since the theory isn't comprehensible to anyone except gauge theorists, it can't possibly resonate with the public. And the physics community is not buying it, either. See the comments on <u>Jon Butterworth's blog</u> for a taste of the early reaction. Although I don't see anyone pointing out what I am pointing out, we do find that mainstream physicists don't like watching an outsider promoted over them—even if he is being financed by the same shady people that are financing them. We see a closing of ranks and little else.

But there are several things you should know which address the theory itself while confirming my judgment above. First, Weinstein has <u>neither written nor published a paper</u> on this theory. Apparently this is all based on verbal communication. He hasn't even put a rough manuscript up at ArXiv, we are told. With no paper, we have to wonder how he managed to jump ahead of everyone and score this lecture and mainstream write-up, which promotes him as the next Einstein. To call it curious would be a smashing understatement. Under the title in the *Guardian* article, it says,

Eric Weinstein's theory is the first major challenge to the validity of Albert Einstein's Field Equations.

No it's not. To start with, it would be hard to call a theory that hasn't even been published a major challenge. All we have so far is a lecture, a bad gloss in the press, and some naked claims by a few friends. That isn't much of a challenge. Beyond that, we always get this sort of misdirection from the mainstream press. By saying that this is the "first challenge" to x, y, or z, they imply that no one has come with anything before. In the same vein, we see them say that "no one disagrees," or that "no

theory has been seriously considered," or that "there is unanimous consent." They can only say these things by utterly ignoring anything outside the mainstream and the standard models. The truth is, the first major challenge to the current field equations came about 80 years ago from Einstein himself, who told us not to trust them. He always hated the cosmological constant, and worked for decades trying to get rid of it. He warned us the equations weren't complete, that they weren't unified, and that they weren't satisfactory *to him*. But he was ignored, the equations were enshrined in the form he hated, and all the mistakes were buried. In fact, it is the cosmological constant that has led to the whole dark matter problem—the main problem Weinstein is said to be trying to solve. Does Weinstein solve the cosmological constant problem or the vacuum catastrophe? No, like string theorists, he just pastes over them with more symmetries, more particles, and more manufactured fields.

Second, Weinstein's theory is based on a 14-dimensional "observerse," so it is not a correction or overturning of the current terrible theories—including M theory—it is only an extension of them. Weinstein adds more undefined math on top of the huge piles of undefined math we already have. The theory has not one line of mechanics in it, and makes no attempt to clear up the historical problems in the fields and math that I have pointed out. It simply takes the current gauges and symmetries as true and then adds more gauges and symmetries. Instead of 11 dimensions, we now have 14. Instead of limiting the zoo of subatomic particles, and trying to unify it as I have, Weinstein adds another 150 particles to it.

Of course this is one reason he is being promoted—probably the main one. He was brought in specifically to add to the mess of particle physics. The best way to subvert any "Public Understanding of Science" is to make sure the public can never penetrate the con, and the best way to do that is to make physics more and more incomprehensible, illogical, and mathematically dense. And if we have more unknown fields and particles, we will need more and larger publicly funded colliders to search for them. Du Sautoy even admits that in his article.

But let's look even closer. Weinstein says

his theory does not have the asymmetry associated with the Standard Model. The reason we cannot easily detect the dark matter is that, in the observerse, when space is relatively flat, the left-handed and right-handed spaces would become disconnected and the two sides would not be aware of each other.

As I have commented before, it would be nearly impossible for a real physicist from the past to believe paragraphs like that now get published in the 21<sup>st</sup> century. To start with, they would not believe we could have gotten so far off-track that we couldn't explain 95% of the matter and energy in the universe. Even worse is that we try to explain that theoretical meltdown with a continuing theoretical meltdown. Notice this "theory" is trying to convince the reader that the missing 95% of the universe can be explained by handedness. First the universe splits into right and left hands; then, for some reason not stated, the left hand outweighs the right by 19 to 1; then, for another reason not stated, the two hands become invisible to one another. Then, to avoid having to explain any mechanics for this splitting, outweighing, and invisibility, the whole mess is hidden under gauge and symmetry math.

Perhaps even worse, in a way, is that word "observerse." The coinage of asinine terms like this is all the proof any intelligent person would require that all rigor and sense has left physics. This pig latin is not only ugly it is false, since physics has never provided any evidence that the observer determines anything in science. It is a stop-gap theory that is both barebones and illogical, and like everything else in new physics, it is only used to fill holes that they can't fill any other way. Can't explain the collapse of the wave function? The observer did it. Can't explain entanglement or superposition? The observer

did it. Can't explain dark matter? Bring in the "observerse." Or how about the "perversiverse"?

To "clarify" this, we are then told:

Weinstein proposes that dark energy is a type of fundamental force that could sit alongside gravity, electromagnetism, the strong and weak nuclear forces. This force pushes space apart and its strength is variable throughout the universe.

So, not only has Weinstein added new 3 new dimensions and 150 new undiscovered particles, he has added a fifth fundamental field of nature. It is a variable repulsive force. What causes it and what is its mechanism and how does it interact with charge and gravity? No answer. How does it fit into Maxwell's equations or the Lagrangian or Einstein's field equations? No answer. How does it unify? It doesn't, it only encompasses. It includes gravity and E/M in the symmetries. It doesn't fit into the current fields, the current fields fit into *it*. How do they do that mechanically? No answer. They fit only by being included in the manufactured symmetries.

But does that have any resemblance to physics, which we assume—due to the name—must be physical? No answer.

Despite the fact that this theory has no physical content, even the critics of Weinstein are petting him with kid gloves. David Kaplan at Johns Hopkins is quoted as saying that it is "phenomenal" that Weinstein was able to put together a theory that is so "coherent."

There are many people who come from the outside with crazy theories, but they are not serious. Eric is serious.

OK. If so, why don't we see any of those "serious" parts in the mainstream glosses, as at the *Guardian*? If the theory has any physical content at all, shouldn't his promoters be able to give the newspapers something? Anything. Instead, everything I have seen has been like the quotes above: empty words. Dreamed-up new forces and imaginary new particles and virtual new fields magically filling holes in data.

Kaplan's quote also has no content. He shows us nothing serious, coherent, or phenomenal at all, and he is quoted only to insert the required slur against those "crazy theories from outside." So hedge fund management is now *inside* physics?

And of course the mathematicians love Weinstein, since he continues to import their toys. Like Edward Witten before him, he continues to replace physics with mathematics. Edward Frenkel is quoted saying we should take Weinstein very seriously. Why? "Because Eric's insights will be useful to mathematicians." OK.

Du Sautoy the mathematician is keen to defend even the unprecedented form of Weinstein's promotion. So what if he doesn't have a paper? So what if his theory is just an idea?

We live in an age where everything has to be sealed and delivered and complete when it's delivered and complete when it meets a journal and, in fact, that's not how science is done.

Interesting. That isn't quite what I was told when I submitted to peer review journals. Apparently we have two sets of rules. If you are a true outsider like me, you are expected to have a complete and bulletproof theory, that explains everything down to the Planck length. One rewrite or change of mind

is enough to call down a chorus of derision on your head and have you permanently wiped from all future discussion. If you question any longstanding math or theory, you are crank coming in and a crackpot going out. But if you are an insider or an anointed comrade, there are no rules. You don't need a paper, you don't need any testable predictions, you don't need peer review, you don't need to tie your theory to previous experiments, you don't even need to talk sense. All you need is some friends at Oxford, the *Guardian*, Perimeter, and the BBC.

## Du Sautoy continues:

I think this represents a new trend. It used to be that one had to be part of an academic hub, such as Harvard or Oxford, to produce cutting-edge research. But not any more. Part of the reason is the wide availability of scientific information on the internet. And I think this is a wonderful development, which should be supported. I also see two lessons coming from this. The first is for the young generation: with passion and perseverance there is no limit to what you can do, even in high-end theoretical science. The other lesson is for me and my colleagues in academia – and I say this as someone who on most days takes an elevator to his office in an Ivory Tower, as it were – we should be more inclusive and more open to ideas which come from outside the standard channels of academia, and we'll be better off for it.

Wow. Telling you day while selling you night. Weinstein graduated from Harvard and his lecture was at Oxford. He is from Hebrew University, like Du Sautoy. So the last thing we are seeing here is some kind of inclusion of the fringes or olive branch thrown to the margins. Mainstream physics is as far from open as it is possible to be. In truth, it is ruled with an iron fist, and even most physicists *inside* academia aren't allowed to speak up. Anyone who questions the various standard models is immediately blacklisted and hounded into oblivion. The only reason Weinstein is being allowed to speak is because he is pushing the current standard models forward, without questioning anything that came before. Although being sold as an outsider, he is *status quo* in every way.

As for the reason he was chosen rather than anyone else, it is hard to know. Since it has nothing to do with the strength of his theory, it must be a matter of politics. Either he is the son of some trillionaire banker, or the secret husband of the Queen of Saxe-Coburg, or the boyfriend of the Dean. This 15 minutes of physics fame may be his payment for some billion-dollar deal he did for some client, by raping the taxpayers of Greece or Italy or Spain. Or, he may have been chosen simply because his name is one letter from Einstein. It was him or some daytrader named Alfred Eisenstein.

But back to what we know. We know the published articles make no sense. In his article on Weinstein, Du Sautoy says,

One of the challenges facing fundamental physics has been to provide a natural explanation for these three generations [of particles]. Weinstein's theory does this by revealing the presence of a new geometric structure involving a much larger symmetry at work, inside which the symmetry of the Standard Model sits. What is so compelling about the geometry involving this larger symmetry group is that it explains why you get two copies of something with 16 particles but also that the third generation is something of an imposter. At high energies it will actually behave differently to the other two.

Wait. If the third generation is "an imposter" and "will behave differently to the other two," that isn't symmetry. Symmetry implies "same," not "different." You can't explain imposters and high-energy differences with symmetry. This reminds us that symmetry is normally a lateral symmetry, not a step symmetry or hierarchy. In other places, these articles talk of chirality or handedness. Well, chirality is a lateral symmetry, since both hands exist at the same energy. Repetition in hierarchy isn't even

symmetry, if you define things rigorously. Lateral symmetry can be explained as reversed spins, for instance. But repetition in the hierarchy can't be explained by such things. To explain that, Weinstein would require some mechanics. He would be required to show how particles are composed, as I have. Instead he just substitutes a manufactured symmetry here and adds it to the gauges and matrices. That explains nothing. Adding something to the matrix doesn't *explain* it, just as adding gravity and E/M to a larger cast of dimensions doesn't *unify* them. You simply cannot explain physical data without mechanics. And you especially can't explain it by begging the question in every sentence you write.

In the next paragraphs, we see Du Sautoy trying to replace Witten with Weinstein. Although we are glad to see Witten going down in flames, Du Sautoy simply replaces him with a clone. Du Sautoy says,

The mark of a good theory is that it makes unexpected predictions that can be put to the test. If the predictions are incorrect you throw out the theory. Supersymmetry, for example – one of the current proposals for how to go beyond the physics of the Standard Model – is beginning to look shaky because we aren't seeing what the theory predicts we should see. It is interesting that, if Weinstein is correct, you would be hard-pushed to stumble on this stuff in the huge slew of data being generated by the LHC. You'd never find this from going from data to theory. Theory is needed to tell you where to look.

That seems to match current wisdom, so no one else will likely question it. But I can see that it is upside down. Du Sautoy is misdirecting you by constantly keeping your eyes on the future. Witten's supersymmetry failed to predict what is coming out of the LHC, so it fails. Weinstein is predicting something different, so we will have to look for that now. So we always need to *spend more money* to test these new theories. Proof is always in the future. Compare that to my theory, which tests itself by solving old problems the standard model could not solve. Doing that is free, so it does not interest these guys. They write me and tell me I am not making predictions they can comb the LHC looking for. No, *I am cleaning up a century's worth of your messes, guys.* I am correcting the mathematical errors, showing the real mechanics, and providing actual field unification. I am assigning the hanging constants to real things, resolving constants across equations, and simplifying both the theory and math everywhere I go. But since they choose to ignore that, they can claim in print that it hasn't been done, or isn't important that it has been done. Although I have shown multiple errors in Einstein's field equations, for instance, they can use their refusal to notice it as "non-existence." Anything they haven't noticed doesn't exist. Because I don't exist, Weinstein's "is the first major challenge to the validity of Albert Einstein's Field Equations."

Du Sautoy then provides proof of my earlier assertion:

When the symmetry in Weinstein's model breaks into pieces there is one half that gets separated in the mathematics from the piece we interact with. The particles corresponding to this bit of the symmetry-breaking might account for a piece that has an impact on gravity but mathematically can't interact with the other fields, such as electromagnetism, making it "dark".

But wait, Dear Dr. du Sautoy. You seem to have forgotten that dark matter is not "half" of the total field. It is 95%. How can symmetry explain a 19 to 1 split? Are 19 and 1 symmetrical now? And you seem to be conflating symmetry with symmetry breaking. Obviously, they are opposites, but you elide from one to the other between sentence one and two here. This "explanation" is just slop.

In the next paragraph, Du Sautoy tells us that Weinstein "reconciles" Einstein field equations with Dirac and Yang-Mills.

The beautiful thing for me is that Weinstein's symmetry group doesn't just appear out of nowhere. It very naturally emerges from his primary goal, which is to reconcile Einstein's Field Equations with the Yang-Mills equations and the Dirac equation. The Field Equations control the curvature of space-time and represent our theory of gravity, whereas the Yang-Mills and Dirac equations represent our theory of particle interactions on a quantum level.

Two problems there. One, we were told in the undertitle blurb that Weinstein was "challenging the validity of Einstein's field equations." We don't see that here. If Einstein's equations are controlling gravity, etc., then nothing is being challenged. According to du Sautoy, Weinstein is just putting Einstein, Yang-Mills and Dirac into his mathematical matrices. Nothing is being either seriously questioned or overturned. Two, no unifying is going on here, either. As you can see, the Einstein equations are still separate from the others. Einstein explains the gravity part, Yang-Mills and Dirac explain the E/M part. That isn't unification. Unification is what I have done: showing that Einstein's equations contain charge and that Maxwell's equations contain gravity. Showing that the Lagrangian is already a unified field equation that contains both gravity and charge. *That* is unification.

Finally, du Sautoy closes with a gloss of his appreciation of science:

If [Weinstein's theory] isn't a description of how our universe works then frankly I'd prefer to move to the universe where it does!

A very strange statement from someone who is supposed to be interested in the sciences, in truth, or in applied mathematics. He has just contradicted the entire empiricism of science, in which data takes precedence over math, as well as contradicting the philosophy of all modern science of the 20<sup>th</sup> century, which spawned him. Everyone from Bohr to Feynman promoted the idea that good physics was math that fit data. That was bad enough, since it leaves mechanics out of the equation. But du Sautoy's stance is even worse. He is more impressed with free-floating math than he is with the universe around him. He doesn't want to match the math or theory to the universe, he wants the universe to conform to the theory he is promoting. Perverse, anti-scientific, unnatural, ungrateful, and pathologically short-sighted. That one sentence could stand as an answer to why mathematicians shouldn't be allowed to lead, control, or determine any part of physics. Math is only a tool of physics, it isn't the endgame.

I have now quoted extensively from both articles up at the *Guardian*, but there is a third weakly linked to these two that is also instructive. Although the early commentary on Jon Butterworth's physics blog seems to be negative toward Weinstein, Butterworth has posted an article by Michael Kramer entitled <u>"There is no Alternative."</u> Although this article is pretty tame on the surface, it actually ties into the Weinstein question in a disturbing manner. I have shown you above how mainstream physics ignores theories that aren't immediately useful to it financially, and in this article by Kramer, we get some hints as to the greater methods used in ignoring those theories. In short, a new field called mathematical philosophy uses Bayesian analysis to "prove that the failure to find an alternative indeed raises the probability for a scientific hypothesis to be correct."

Why is this disturbing? Because mainstream physicists are already using this flawed analysis to bolster their failing (but longstanding) theories. No successful alternative to current theories has been found, we are told, therefore they are more likely to be right. This is just a subtle twist on the old Copenhagen interpretation, which told us quantum mechanics was the best we could ever do. But where the old Copenhagen interpretation was just a bald fiat by Bohr and his minions, the new fiat comes dressed up in Bayesian math. By this new "proof," a field that is successful at fending off invaders for many decades or centuries is more likely to be correct than a field that isn't. OK. Since Aristotle's theories were ascendant for much longer than Newton's have been, his theories were mathematically more

likely to have been right in the 17th century. Right? Hello?

Hopefully you can already see this is just more propaganda. Physics is falling apart, so it needs more and more bolsters. These guys are trying to use statistics and mathematical tricks to convince the audience that the standard model's age is a sign of its correctness. If mainstream physics is successful in burying me and all like me, that must mean they were right and I am wrong. Obstruction then becomes the ultimate success.

## Kramer even admits that, in passing:

Again, the answer involves the judgment and preferences of individual scientists, and depends on sociological and historical factors, which may in some cases even preclude us from pursuing scientifically viable theories.

But he lets that slide as improbable. Although the master Thomas Kuhn told us science could easily become subordinate to politics, and might have always been so, Kramer drops Kuhn's name and then pushes his article in the opposite direction. He implies that scientists wouldn't do that, and that our standing theories are very likely to be correct simply because they are standing. In other words, Kramer does exactly what Du Sautoy did: sell black as white and day as night. He tells you the right answer, sends you to the right authorities, but then *flips them*. A magic trick in print whereby you are sold an inverted universe. Quantum Mechanics can't be wrong, since so many top physicists have sold it. Fascism posing as progressive science.