return to updates

Is Big G a Constant? No.

by Miles Mathis

My regular readers should already know the answer to this question, since I have written many papers on G. But one of them asked me to clarify it by giving it a paper of its own. Apparently he had been watching a video of Rupert Sheldrake, where it was suggested that G might not be a constant. Sheldrake pointed out that Whitehead and Dirac and others had suggested it might not be a constant, reminding his audience that these mathematicians and others had attempted variant equations for Relativity or Quantum Mechanics to show this.

But I have already proved that we don't need to go to either Relativity or Quantum Mechanics to solve this one. I have corrected both Relativity and Quantum Mechanics in dozens of ways, so I was never looking for an "easier" solution. As usual, I was looking for the correct solution, ease be damned. The correct solution to the problem of G is found by unlocking Newton's gravitational equation, where the constant has always been found.

I will start by reminding you that Newton didn't discover G himself, or give it the firm definition of "constant" we now have. He knew there was a numerical hole in his equation that must be filled, of course. And, yes, he himself would have called that numerical filler a constant. But he knew as well as anyone that this constant was only as firm as the other variables in the equation. Since he assumed that mass was the cause of the force, and since he assumed that the mass of a given object was constant, he would have assumed his constant was fixed, as we still assume that it is. However, if you could have shown him that his mass was really a compound of two fields—not one—and that one of these fields could vary slightly, he would have been willing to allow his constant to vary in the same way.

This is because the constant in such an equation is not and was never meant to be a so-called constant of Nature. G has only taken on that form due to the ossification of physics, and due to the longstanding of the assumption that matter exists in only one field at the planetary level. We know that not every constant in an equation is a constant of Nature. We know that an equation constant is—in the first instance—simply a *relationship* between variables. It is unchanging only in the case that the relationship between variables is unchanging, and that is not a mathematical question. It is a physical question.

As Sheldrake pointed out, we also know the answer to that question: G is not a physical constant. As data, it is only fixed *near* a known value. Data on G is not constant and never has been. For some reason, physicists are not prepared to face that fact. It scares them. It shouldn't—and won't after they read this paper—since admitting G is not fixed to a single hard value doesn't bring down Newton, Einstein, or quantum mechanics. In fact, it verifies all of them (for the most part) while providing a simple means of unification. They have been seeking unification from both sides for decades now, so all of this should thrill them rather than frighten them.

Yes, G is actually the unification number in the unified field. As I have shown, Newton's original

equation was already unified from the beginning. It contained and contains two fields and G is the scaler between them. Each mass in the equation can be written as a unified field entity, by writing it as a density and a volume instead of a mass. We then give density to the charge field and volume to the gravity field. G takes the size of one field down to the size of the other, so that they can be put into the same equation. In other words, the gravity field is an acceleration field, and that acceleration applies to macro-bodies. The charge field however is a field of photons, and the charge force is transferred at that level. So we need a size scaler between the two forces. That is what G is.

Stated that way, it is clear that G isn't the sort of constant we have been taught it is. It is the *relationship* between the charge field and the gravity field, so it is only as fixed as that relationship is.

Since the bodies in our Solar System are *known* to move through different patches of charge, it should not surprise anyone that G is varying to small degrees.

I will be asked how it is known. It is known that the Solar Wind varies, that the magnetosphere varies, that the aurorae vary, that Solar density and magnetism vary, and on and on. All these things are driven by charge. All electrical and magnetic variations are driven by variations in charge. This is known or should be known. In addition, the entire Solar System is traveling through patches of varying charge densities. This is known or should be known.

Mainstream physicists will say, "Well, even if we admit that, we don't have to admit that charge is in the old gravity equation. That is just a wild proposal of yours, with no evidence to support it." Well, mainstream physicists don't *have* to admit anything. They are free to remain with their heads in the sand, if that is what they prefer. But since being proposed almost a decade ago, the status of my proposal has now gone far past that of a naked or wild assumption. I have used the proposal to solve a slew of their most embedded problems, including the vacuum catastrophe. I have linked G to Coulomb's constant *k* and the fine structure constant. I have shown that this charge hiding in Newton's equation is dark matter, and I have shown how it explains the cosmological constant. I have even clarified the Lagrangian using my new information, showing how it too was also a unified field equation in disguise.

Now for some clarifications. My readers may say, "I thought you said that G was a scaler between photon and atom. If that is so, how can it vary? Shouldn't the charge photon size be constant, and the proton size as well?" Yes, they are, but remember the form of the equation. The charge field is now represented by density in my rewrite of Newton's equation, so if the charge density changes, D changes. If D changes, M changes. So it is actually the mass that is changing, not the constant. But since physicists don't know that and wouldn't admit it if they did know it, they let G vary instead of M. In other words, in these modern experiments on G, they take measurements and then apply the equation, *assuming M is constant*. This gives them G. If they let M vary, they could keep G constant, but they don't do that.

My closest reader will now say, "In that case, G *is* a fixed constant. Your title isn't true! It is M that isn't a constant!" That's correct. But of course I wrote my title to apply to the way G is currently used. As G is currently used, it isn't a constant. It must vary because it is expressing the variation M isn't allowed to express.

We can actually use the current variation in G in real data to measure the variation in the charge field. The "uncertainty" in G is a *direct* expression of the variation in the charge field of the Solar System, and of this part of the galaxy. Every time we measure a variation in G, we are actually measuring the

variation in the charge field.

Mainstream physicists will say, “Oh, this is too much! We have no *evidence* mass can vary like this.” Ah, but we do. Remember the recent reports that the standard kilogram was changing, for reasons unknown? As I showed in that paper, the reason is charge field variation. The weight of the standard kilogram is a compound of its gravity field and charge field, so if the charge field changes, the weight will also. I have long had an equation that tells us how much of the total field is charge on the surface of the Earth (.009545/9.8 or about .1%), so the charge variation must be less than that. This is precisely what we find from data. Mass is never found to vary more than .1%. For instance, if the charge field falls by ¼, we should find a variation in mass of .024%. The mass changes in data are in that range.

As a bonus, I will conclude by commenting on something Sheldrake also mentioned in his youtube video. I went to it to see what he said about G and found him talking in the first moments about his “ten major assumptions of science.” The first was that the universe is mechanistic. Science treats the universe, including man, as a machine. It struck me how strange it was to see *that* as first on his list of ten major assumptions of mainstream science, seeing that physics had actually become *non*-mechanistic in the 20th century. We know what he means: that is sort of the standard orthodoxy and leading shibboleth and first loose definition of science. But here Sheldrake is arguing that science needs to open itself up to non-material or non-mechanistic ideas, when in fact physics hasn't been mechanistic since the 19th century.

Also curious that I tend to get lumped in with Sheldrake and others, since we are all seen as scientific heretics. But while Sheldrake is arguing that science needs to be less mechanistic, I have been arguing all along that science—and especially physics—needs to return to mechanics. Physics is already too full of magic, and we don't need any more.

This is not to say that I totally dismiss Sheldrake's points, it is just that I think he is couching them in the wrong language. I tend to read his nods to the paranormal as unknowing nods to my charge field, which is revolutionary but not paranormal. It is completely physical and mechanical. He is implicitly assuming that the unknown mechanisms of what he is calling paranormal (or morphogenetic, in his own language) aren't mechanical or material. I have shown that they are. In my papers on such things as Bode's law and tilt of the planets, I have shown that much of astrology can be explained by extending astronomy. The charge field brings a large part of astrology into astronomy, since charge gives us a physical mechanism for many influences we didn't previously have. I have shown that the planets *do* influence one another, via charge. Charge is both mechanical and material.

In the same way, a ubiquitous charge field gives us a mechanism for smaller bodies to influence and communicate with one another as well, and this is no doubt what Sheldrake is seeing in his morphogenetic field around living bodies, without knowing it. He is seeing the results, but has no explanation of the mechanism. Without even the hint of a mechanism, of course his theory is going to look like magic to the mainstream. If he ever decides to tie his morphogenetic field to the charge field, he will be able to point to the actual mechanism of his propositions.

None of this is to say that I view either the universe or man as a machine. Besides having the wrong flavor to it, that idea was always simplistic. But when we are doing physics, we should do *physics*. Physics was and always should be about the physical, material, and mechanical. We should rigorously follow all the rules of logic, math, and mechanics. The 20th century proved how toxic to the field a

relaxation of the rules can be in science, and how far off track you can get in a very short amount of time by allowing fudges.

I agree with mainstream science when they require Sheldrake to propose some sort of mechanism for his new theory. Scientists aren't allowed to just propose whatever they like, based on a feeling or a hunch. Even if Sheldrake is on the right track, that is, his theory simply *sounds* too much like bad spiritualism. It is a slippery slope from suggesting your theory doesn't need to be mechanistic or materialistic to suggesting your theory doesn't require any objective confirmation at all.

The irony is, though, that mainstream physics has slid much further down that slope than Sheldrake has. Sheldrake is still on the first step or two of that slope, while physics has slid almost to the base of the mountain, floundering in the schist. As I have shown in recent papers, top physicists like Leonard Susskind have long been saying outloud that physics is now what top physicists say it is. These top theorists no longer need evidence: the theories are good because they *say* the theories are good. Susskind has said that if you don't agree with him, he "will laugh at you as a poor deluded fellow." He won't give you evidence, he will laugh at you if you ask for evidence. That is even worse than spiritualism. It is a sort of spiritualism mixed with fascism. The theories are good because they "feel right" to top physicists, but they don't feel compelled to help you feel that way, too. They don't feel the need to light candles or burn incense to put you in the mood and pull you into the flock. If you lack the faith, they are quite ready to excommunicate you with a vicious snicker.

Physics got rid of mechanics almost a century ago, codifying this in the 1920's with the Copenhagen Interpretation. That's right: mainstream physics had already got beyond where Sheldrake is now by 1926. Sheldrake in 2012 is just suggesting that science might, maybe, possibly *consider* looking at the world non-mechanistically. But physics kissed a final goodbye to all that ninety years ago. Mainstream physics has been manufacturing whatever it needed from a wish and a song since then. Physicists have been ignoring any data they didn't like since then, and crowbarring any data they did like into equations it doesn't fit, using tricks that any real magician would be embarrassed to be caught using. New physics has been completely virtual for decades, and if you study this use of virtual particles and fields, you find it is pretty much indistinguishable from the spiritualism of Madame Blavatsky. It has all the scientific rigor of a Tarot-reading. The mainstream now attacks Sheldrake for daring to mention Henri Bergson, but Bergson was like Galileo compared to these new physicists. Bergson at least tried to maintain some sort of consistency with his admittedly half-baked hypotheses, but new physicists never do. They let it all hang out, baby. They will publish obviously fudged equations in textbooks, teach them to you with a straight face, and not even bother to wave a wand or turn down the lights. They don't even have enough respect for us to try to hypnotize us. To hell with séances: we aren't even worth fooling. If *Scientific American* tells you to believe it, by god you better believe it. "Thank you for that fudged equation, SIR, may I have another!"

This all goes to say that although I don't have much use for Sheldrake's morphogenetic fields, in general I find his methods much more rigorous than those of the mainstream. And I can only laugh when I hear the mainstream calling Sheldrake a mystic. That's like Moby Dick telling Flipper he has fish breath.