## The STRONG FORCE Blows Up

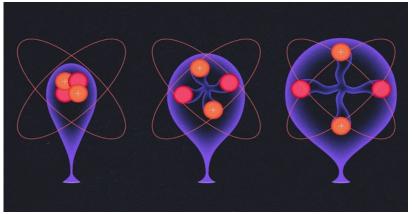


illustration by Kristina Armitage

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Well, well, the mainstream is now admitting that experiments don't match their predictions for the strong force. Not even close. They have rerun a basic experiment on Helium which they have had kept under pretty tight wraps until now. The original experiments were run back in the 1970s, on Helium expanding in a strong electric field. Using Weinberg's effective field theory allowed them to compare the results to "math" that was already famous then, and they found (or should have found) that the results were at least 100% off the field math. But that was all buried for decades with the excuse that the experiment and math were both rough. They needed time to iron some things out. But here we are 50 years later, and researchers in the field are now finally admitting it is far worse than that. In a paper recently published at *PRL*, Sonia Bacca et al from the Johannes Gutenberg University of Mainz have reported the miss is still above 100% (double), and that the experiment can no longer be blamed for anything. All signs point to a math that simply doesn't work. Not even close.

As Katie McCormick at *Quanta Magazine* refreshingly admitted in her opening paragraph:

A new measurement of the strong nuclear force, which binds protons and neutrons together, confirms previous hints of an uncomfortable truth: We still don't have a solid theoretical grasp of even the simplest nuclear systems.

Of course, that is because when Weinberg was cobbling together this "math" they didn't have a model of the nucleus. There was no idea in 1970 that the nucleus might channel charge, since that theory didn't arrive until I came along after 2000. So all Weinberg could do is try to fit the mythical strong force to Gell Mann's <u>equally ridiculous quark theory</u>, explaining the strong force as a side effect and cohort of that. Given that, it is amazing he was only 100% wrong. The only reason he wasn't far more wrong is that he knew roughly what he needed going in. Although the architecture or cause of nuclear forces, which had been resisting nuclear splitting for decades. This is what prevented him from being wrong by 2000%, as with dark matter, or 100 orders of magnitude, as with the vacuum catastrophe.

As you can see from the illustration under title, the mainstream still has no idea what is going on in the

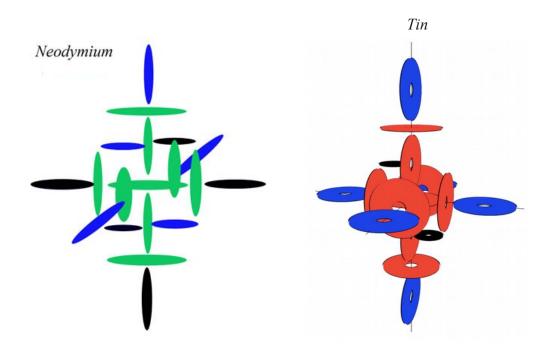
nucleus. That isn't illustrator Kristin Armitage's fault: she is just working with what she has. The problem is that mainstream physicists have been terrible at visualization for centuries, getting more and more lost in their specializations and maths. So when it comes to an experiment like this, they have nothing to go on. Just a nucleus that is modeled as a balloon or a neuron.

The "mechanics" is even worse:

In their experiment, Kegel and his colleagues excited the nuclei by shooting a beam of electrons at a tank of cold helium gas. If an electron zipped within range of one of the helium nuclei, it donated some of its excess energy to the protons and neutrons, causing the nucleus to inflate. This inflated state was fleeting — the nucleus quickly lost grasp of one of its protons, decaying into a hydrogen nucleus with two neutrons, plus a free proton.

"Donated" its energy? How do you donate energy? That's not scientific language. The electron should either have to collide with something, or interact with the nucleus via charge. In neither case is anything donated. But this squishy language absolves these scientists from having to address foundational mechanical questions, starting with the nuclear architecture, but also including the nature of charge and its transfer.

And the math is no better. An "effective field theory" isn't really either a field or a theory (or effective) since it doesn't come from calculations on a known field of a known make-up, and since it therefore contains no theory. It is the usual double misnomer QM so loves. Quantum Mechanics was never mechanical, you know, and they never understood their main quantum was the photon, not the electron. Bohr conflated the two in the beginning and everyone before me missed that. Effective field theory, like the rest of QM, QED, and QCD, is completely heuristic, not to say fanciful, and is no better than number juggling. Feynman admitted that before he died, to the chagrin of everyone in the field. I have already caught Weinberg fudging equations all over the place, so this doesn't really surprise us. He was a master of the bluff. What surprises us is the resistance mainstream physicists like Bacca have to anything new. When someone comes in and solves all their problems for them, including gifting them a bunch of pretty diagrams, they run for the hills, pretending for two decades they have never heard of him—even though he is outranking their own university sites on the web, as well as Wikipedia itself.



Those are just a couple of my nuclear diagrams, in two forms. That is the future. The mainstream is still living in the past.

#### "The theory should work," said Sonia Bacca, a theoretical physicist at the Johannes Gutenberg University of Mainz and an author of the paper describing the discrepancy, which was published in Physical Review Letters. "We're puzzled."

Read that closely. How naive does she sound? The theory should work, WHY? Because Weinberg is famous and she was taught this in school? If she had studied the history of her own field and the genesis of this fake math, she would realize there was zero chance it would ever work, except by wildest accident. If she had been taught the definition of "theory" in any of her classes she would realize this fake math doesn't fit that definition. It is a stop-gap hole-filler, and doesn't qualify as either math or theory. QM has become a very long line of hole-fillers, paste-ups, band-aids, and ugly sutures. It reminds us of a duct-taped Red Green car:



You will answer that I haven't (yet) provided any competing equations here, but how could I? I have my theory but I don't have their numbers. I don't know what EM fields they are applying to this Helium nucleus or in what manner, so how could I possibly run any calculations? In hundreds of papers, anytime I can find numbers I am able to show very simply how to get their results, but in most cases I am not told enough about the experiments to respond in that way. Even in the actual papers at places like *PRL*, they usually don't describe the machines in enough detail for me to do any mechanics. They are always talking about quasi-particles or dreamed-up vacuum forces, and rarely does anyone admit anymore there is a real nucleus there. They often don't even tell you what element they are working with, because—given their operators and ghost fields—it doesn't even matter.

What is most amazing about this report is that no one suggests that it may not just be the math that is wrong, but the entire idea of the strong force. These huge misses fail to confirm not only the math but the ideas behind the math. The basic idea of the strong force is just as cobbled-together and fanciful as the math, and is simply a continuation of the bluff. We have zero evidence there even *is* a strong force between nucleons. I have shown the binding can be explained much more simply by charge channeling, with NO force between nucleons other than the normal charge forces they have outside it (like magnetic moment, etc). All nuclear forces turn out to be channeled charge forces.

They have had many signals of this over the decades, not the least of which is the ridiculous form of their strong force, which is upside down to all other known forces and doesn't fit the previous definitions of a field force. It is illogical in a half dozen ways, but they just gloss over that as usual and create another subfield to try to explain it. Band-aids on top of band-aids on top of spouting hemorrhages.

# Then in 1990, Steven Weinberg found a way to connect the world of quarks and gluons to sticky nuclei. The trick was to use an effective field theory - a theory that is only as detailed as it needs to be to describe nature at a particular size (or energy) scale. To describe the behavior of a nucleus, you don't need to know about quarks and gluons. Instead, at these scales, a new effective force emerges - the strong nuclear force, transmitted between nucleons by the exchange of pions.

That is another obvious pointer to the problem. A theory that is "only as detailed as it needs to be". Well, since this theory is now failing, I guess it needed to be a little more detailed. Not very effective, was it? Effective only when conflicting experiments are buried for 50 years and the "theory" is sold as cake by all the magazines during the same time. And when competing theories are ignored as inconvenient because they aren't mailed in by insiders.

Oh, and except for the fact we have zero evidence nucleons exchange pions to create the nuclear force. That was just another little something Weinberg pulled out of his shorts to bamboozle the credulous. How exactly do baryons exchange pions, and why would they want to? What is the signal to begin exchanging pions, or to stop? I will be told we do see pions in nuclear explosions, but my theory explains that without resorting to any sort of uncaused exchange. In my theory a pion is just a baryon stripped of its outermost spin. So of course you are going to see some in these high-energy events. But in my theory we don't need exchanged pions to create the force, since the force isn't mysterious from the start. Once you recognize the nucleus is recycling charge on strong paths, and how those paths interlock, you no longer need a strong force. Charge explains everything by itself.

Another problem is that Weinberg's math is "chiral", this being a *chiral* field theory. But since he <u>didn't understand either the degrees of freedom</u> available, <u>or the cause of various lacks of symmetry</u>, there was no way he could put together a successful math at this level. <u>Because he had anticharge and antiphotons to work with</u>, but didn't know it, he had no way to solve this. As with the Earth, charge enters the south pole of the nucleus and anticharge enters the north pole. When those streams meet along the axis, they not only can spin one another up, creating EM, they lock the nucleus together, like gear teeth preventing slippage.

Here's yet another clue they fail to read:

# As with other nuclear transitions, only a specific amount of donated energy will allow the nucleus to swell. By varying the electrons' momentum and observing how the helium responded, scientists could measure the expansion.

What causes this specific energy? Obviously it must be caused by the fact there are existing charge channels the incoming beam must match in order to cycle through the nucleus. These channel strengths are different for each element, and will also vary depending on the lab set-up: experiments lined up vertically will act different than those lined up horizontal to the Earth's charge field. It also depends on which angle to the nuclear axis you send in the beam. They have begun to realize that in NMR, as we saw in my paper on that.

And yet another clue hiding in this press release:

### None of the theories matched the data. But, strangely, the calculation that came closest used an oversimplified model of the nuclear force — not the chiral effective field theory.

Why is the "oversimplified model" closer to data than Weinberg's fancy calculations? Because this model is closer to a straight charge model, treating the nuclear force as charge binding. I suspect this new model may have even used my architecture to generate numbers, but of course they can't admit that.

This also explains "squishiness", which they are talking about in this event. They admit they don't understand the cause of squishiness, but it is simply a measure of the element's resistance to an applied EM field. An element is built up from photons in a star or galactic core, where the energies are very high. This architecture is locked-in and will remain in place as long as charge continues to channel through it. Which, inside a galaxy, it always will. Charge levels are fairly high here on a planet very near a star, so this ambient field continues to locks the architecture in place. But in these experiments we apply a SECOND field, which then competes with the ambient or given field which comes from the Earth and Sun. The mainstream has never recognized that. It treats charge strengths as intrinsic, rather than as caused by recycling from the environment. So it doesn't realize how the lab environment is affecting the experiment. In many ways determining it. Squishiness comes not only from these two fields reacting against one another, but by the basic compressibility of charge. At high local energies you can force these nuclear channels to re-arrange, especially the ones determined by the outmost nucleons. Since the atomic number doesn't change in that circumstance, just the channeling, it may look like an element or atom is squishing without splitting. In some circumstances it may lock into that new configuration and in some circumstances it will revert to the original one once the applied field is removed. We have seen that you don't even require applied fields to achieve that, since a larger atom can do it to a smaller atom, if they are close enough. The channels of the larger atom "squish" the smaller one. That is because charge is a real field, and it moves like a gas or liquid. And, like a liquid or gas, it is also compressible in the right circumstances. It is not infinitely compressible, one because the photon has a real radius and mass, and two because it has an incompressible wavelength determined by its local spin.

Will the mainstream learn anything from this? It is doubtful:

Several groups, including van Kolck's, plan to repeat Bacca's calculations and find out what went wrong. It's possible that simply including more terms in the approximation of the nuclear force might be the answer. On the other hand, it's also possible that these ballooning helium nuclei have exposed a fatal flaw in our understanding of the nuclear force.

To me, that indicates they plan to just keep adding fudge to Weinberg's chocolate. That has been their method for a century, so why change now? Why start doing real science now, when fake science has proved to be so much easier to promote, inflate, and adumbrate?