

Discussions of the Weak 'Force' and More

sgm, 2018/NOV/30

The origins of the expression 'weak force' date back to late-60s while the "existence of such quanta was first discussed by some of us in the late 1950s". So it's a fairly recent theoretical construct with roots as far back as the 1930s.

Youth does *not* imply immaturity *nor* does it imply lack of faith in the concept with respect to theoretical physics.

Before we detail the notion, let's consider two analogies:

1. free neutron decay
2. crime scene investigations and reporting

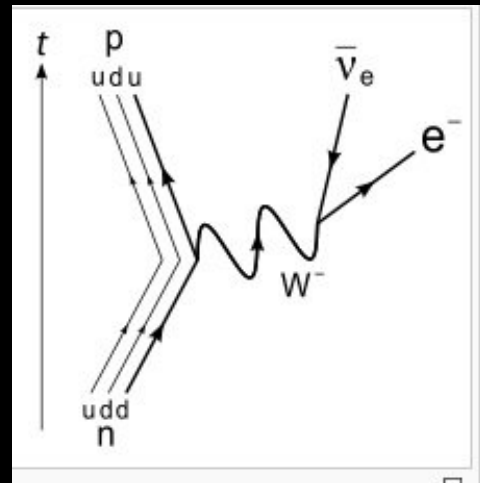
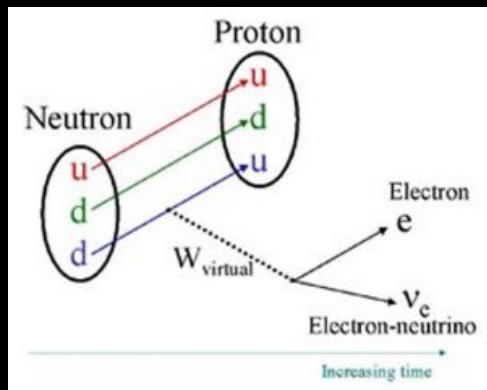
Suppose you're an alien with no clue about human socialization nor criminal activity nor what anything means at a crime scene. Your task is to pose as a human reporter and observe. Because your assignments are limited to what's reported on a police-scanner, you always arrive late – around the same time as other actual human reporters arrive. Because you don't want to give up the fact you're an alien, you don't talk to other reporters; you simply observe as you're told .. You observe that there is *always, in every case*, some barbaric actions/behavior that results in damage/theft of property and/or damage/termination of human life. Also, you notice that in *every case*, there are *policemen present* when you arrive. You begin to postulate that somehow police are actually *causing* the crimes at the scenes. This is not unreasonable because the actual perpetrators are not always available at every crime scene.

Now consider free neutron decay:



always Always ALWAYS happens this way *without exception*. So it's natural for you to naively conclude that neutrons are *actually composed* of protons, electrons, and antineutrinos.

But..



this is the current view of neutron decay. We believe a down quark transforms into an up quark within a neutron converting the neutron into a proton – via – the emission of a weak-W that transforms into an electron and antineutrino. So we say the weak-W *mediates* the decay of a neutron into a proton .. **Sounds** less naive than the idea neutrons are composed of protons etc, but is it?

Compare the diagrams and text above explaining the process to our naive alien perspective of human crime scenes – and – we realize they're not much different. Police are *always there* so we assume naturally they **cause** crime scenes; W particles are *always there* with neutron decay so we naturally *assume* they somehow **mediate** the process.

As we **know**, as human beings, police do *not* generally **cause** crime scenes, we *must understand* that W particles do *not necessarily cause NOR mediate* radioactive decay simply because a PhD tells you they *believe* they do.

The core of science is human curiosity tempered with healthy skepticism and ample use of Occam's razor: the simplest explanation tends to be correct. In dealing with the weak 'force', the simplest explanation is one *without mediation*: some nuclei are stable and some are not.

Part 2: Bosonless Nuclear Glue

Most physicists would dismiss the argument above because we're asking them to discard large chunks of the Standard Model without reasonable/rational replacement alternatives. I simply don't care about the weak 'force'; it doesn't intrigue me and never did. The strong-force however, because of its resemblance to gravitation, is something else. I can't offer physics a replacement for the weak 'force'; I CAN offer one for the strong.

In many other essays, I've detailed my understanding of temporal elasticity:

<http://vixra.org/pdf/1811.0474v1.pdf>

<http://vixra.org/pdf/1811.0395v1.pdf>

<http://vixra.org/pdf/1811.0309v1.pdf>

<http://vixra.org/pdf/1808.0617v1.pdf>

<http://vixra.org/pdf/1806.0288v1.pdf>

which has *three functions* in our universe:

1. gravitation – THE major force in cosmology
2. nuclear glue / strong force – THE force in nuclei
3. provides a speed-cap for masses, c ,
via the Lorentz factor, $f_L = \sqrt{1-v^2}$, $v=v/c$
 $m-m_0 = KE = \text{relativistic } E = E \text{ in } \textit{temporal warp}$

So the strong 'force' is a kind of *nuclear temporal warp* with very high gradient. Gravitation is a feeble *astronomical temporal warp*, feeble compared to its manifestation in nuclei. And a speed cap for masses is an *absolute requirement for a causal universe* while giving us hints about "what's really going on" at relativistic velocities: energy in temporal warp = relativistic energy = kinetic energy = total-energy minus rest-energy.

Temporal curvature/elasticity is the ONLY bosonless factor that can unify gravitation and strong-force without extra dimensions and obfuscation. If we accept the weak 'force', strong 'force', and associated bosons, we're STUCK. The best we're ever gonna do is electroweak, strong, and gravitation. Why?

Because we want to believe we 'understand' radioactive decay, nuclear forces and composition explicitly with quarks and gluons, and the implication that **everything** is mediated by bosons *including mass*?

That's *pure arrogance* NOT science!

.. Over the years, I've made several **wrong** predictions:

1. black holes – saying they're a fiction not fact
2. gravitational waves – too destructive if real
3. the Higgs – they'll never find it
now that they have – it doesn't do what they say it does
4. antimatter falls up
5. antimatter speeds up time

My argument regarding the Higgs is exactly the same as for W 'bosons': the existence of 'the Higgs' does not imply it mediates mass anymore than Ws mediate radioactive decay. And the following is extremely important regarding temporal curvature: just because **I was wrong** about black holes and gravitational waves – and – may be *completely wrong* about antimatter, does not in **any** way shape or form imply I'm wrong about temporal elasticity.

I have spent decades trying to understand and reconcile Special Relativity with General Relativity – constantly trying my best to employ Occam's razor without 'slitting my own throat' – trying my best to understand time, space, and causality – with the minimum of assumptions and parameters. Sometimes adhering to an unnecessary paradigm such as 2D-time, charged anti-photons, and elastic space. Constantly attacking ideas and frameworks – looking for inconsistencies and faults. And end up with one undeniable fact of our existence: time bends – and – if string theorists are anywhere close to the truth, time also stores energy and acts as a 'force' between masses.

Time is *the* mediator between masses and cap on speed. We don't need bosons except for photons to explain electromagnetic phenomena, but that's it. Temporal elasticity and photons – the best we can ever do.