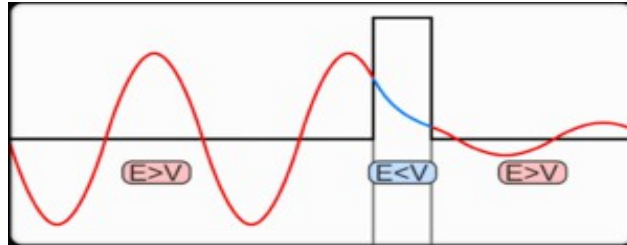


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Quantum Tunneling



by Miles Mathis

This second of five “impossible chemistry” problems [published recently at *New Scientist*](#) is much easier to destroy than the first, which was [quasi-crystals](#). In the 1970s Vitali Goldanski proposed quantum tunneling as the solution to cold molecular reactions in space.

This is what happens when physicists try to answer questions with a theory that is compromised at the foundational level. You should see this problem as just another spin-off of the [vacuum catastrophe](#), whereby the quantum equations are wrong by about 120 orders of magnitude. Because all the fields are mis-sized, both absolutely and relative to one another, neither physicists nor astronomers nor chemists have a field that can explain the actions and reactions and events in it. They are therefore forced to fudge their equations to match data. Quantum tunneling is just one more blatant fudge, like virtual particles, symmetry breaking, borrowing from the vacuum, renormalization, backwards causality, entanglement, and on and on.

Quantum tunneling is (or should be) one of the most embarrassing and transparent fudges in the history of science. It is strictly non-physical, and is simply a form of magic. In a nutshell, the Heisenberg Uncertainty Principle is mis-interpreted for the millionth time to allow a statistical fudge. We are told that since the probability of an event is never zero, the impossible can occasionally happen. But any honest mathematician knows that is just a misuse of statistics. For one thing, statistics and probabilities apply to data, not to real events. Data can be statistical. Real events are real. A real event can easily have a probability of zero. The probability that you will find me on the Moon tomorrow from flapping my arms is zero. It can't happen. Therefore, if you find me on the Moon tomorrow, you can be absolutely certain I didn't get there by self-propulsion. But quantum tunneling ignores that logic. If new physicists discover *anything* they can't explain, they can fudge an answer with quantum tunneling. That is because there are no rules of quantum tunneling. That is to say, if you accept quantum tunneling as the explanation for anything, you have to accept it as the explanation for everything. By the current logic, I could be answered that even my example of flying to the Moon by flapping my arms does not have a probability of zero. In QED, *nothing* has a probability of zero. Pauli and Gell-Mann agreed on that: even macro-objects and events obey quantum laws, and Mars is a probability that requires decoherence.* But if that is so, then my arrival on the Moon tomorrow wouldn't have to be explained sensibly, with any hard and fast laws of physics, or by any spaceship. I could just claim “quantum tunneling,” and everyone would have to quit asking questions.

Quantum tunneling is another one of those unfalsifiable things new physicists love so much, since it saves anyone from having to do real physics anymore. For instance, if I say, “*Prove* to me that x happened due to quantum tunneling rather than by some simple law of physics,” there is no way for them to do that. Since quantum tunneling is neither logical nor physical, it can't be proved. There is no data and no possible data. The idea isn't scientific. All they can say in its defense is, “It happened, the energy equations said it shouldn't happen, therefore we must have quantum tunneling.” But there is no experiment you could build to prove or disprove quantum tunneling, given the current equations.

Of course there is *one* way to disprove quantum tunneling, and that is by correcting the equations. If you correct the equations, showing the energy predictions were wrong, and that the mediating particle can easily get through the barrier without using statistical fudges, then you disprove quantum tunneling. That is what I have done. I have shown that the field equations are flat wrong, that the barriers are not what we think they are, that the field is not what we think it is, and that the particles are not what we think they are. To be more specific, I have solved the [vacuum catastrophe](#), showing that gravity and charge have been mis-sized at the quantum level. This was caused way back in history, and concerns the misuse of Coulomb's constant in early equations (among other things).

I have also shown that the charge field at the macro-level is horribly mis-sized, leading to the dark matter mystery. [Dark matter is charge](#), so that [photons outweigh baryonic matter by 19 to 1](#).** With these two corrections, and a slew of others, I have completely revolutionized the unified field. Part of this revolution is the answering of all the old mysteries, and the jettisoning of all the old fudges. Quantum tunneling is among these fudges. It is no longer needed. It is already an embarrassing relic of a sad time in the history of physics.

If we apply my corrections to the current problem, we find that the energy levels in space have simply been miscalculated. Nothing mysterious is going on with these molecular reactions, so we do not need any mathematical magic to explain it. There is much more charge in empty space than we think, which not only explains this problem, it explains [star formation](#) without the pathetic gravity-only model of collapse, it explains the [bullet cluster](#), it explains [angular momentum in galaxies](#), it explains [Bodes' law](#), it explains the lack of [angular momentum in the Sun](#), it explains [dark matter](#), and a hundred other things.

And if we look at quantum tunneling more broadly, we find that all the other events that have been explained by it are explained in the same way: the old equations were simply wrong. I am not questioning the data. Yes, the particles of Born and Gamow and so on did go where we are told they went. But they did not get there by tunneling. They got there by obeying the correct equations. The equations of the time were not correct. To be more specific, the [Schrodinger equation is not correct](#). Like [Newton's equation](#), it is roughly correct in form, and therefore can be applied to some simpler problems in the field. But it does not include all the necessary degrees of freedom in the right way, and therefore fails in many specific instances. I have shown that Schrodinger's equation has embedded in it many mistakes, including angular errors [in the Bohr equations](#), earlier misuse of Coulomb's constant, [orbital errors of Newton](#), a [misuse of pi](#), mistakes of Rutherford's earlier [scattering equations](#), and a charge field with no real presence. Therefore, when Gamow and others ran the equations back in the 1920's, their predictions for what should be capable of happening were off by significant margins. The equations said that particles should not be going where they were going. Well, the equations were wrong, that is all there is to it. If we are talking about tunneling into the nucleus, well, I have shown in [a recent paper](#) that the estimate for the nuclear density is off by about 10^7 . Most of that correction is caused by the fine structure constant, which [I have shown](#) is mainly a hole filler created to push a bad equation in line with data. You can immediately see that if the density of the nucleus was ten million

times too high, that would seem to prevent particles from entering it, and require tunneling as the explanation of motion through that “barrier.”

In a more recent paper, I unwound [the Drude-Sommerfeld model](#), which is closely linked to the tunneling problem. There we saw that photons, *not electrons*, were moving across the substance to explain energy transfer. Charge moves through materials, not electricity, so the fact that electrons don't transfer isn't to the point. It doesn't have to be answered. Since photons are much smaller, they easily go where electrons can't. So you need to follow photon potentials, not electron potentials, you see? And if you do that, you never encounter the need for tunneling. You may also wish to consult [my paper on the P-N diode for more on that](#).

The problem is that mainstream physicists still don't understand the difference between charge and electricity. Due to old misunderstandings by [Maxwell and Bohr](#), the electron and photon have become conflated. Bohr actually switched variables in important equations, and these switches were never noticed until I came along. Maxwell did a similar thing even earlier, failing to properly distinguish between his E field and his underlying D field. It is the D field that is primary, since it is mediated by photons. But later physicists lost track of that subtlety, dooming their equations and ultimately leading to tunneling. Photons don't need to tunnel: they are small enough to go where they need to go without tunneling.

In the problem of cold molecular reactions in space, the solution is simple: the ambient charge field in space is much much stronger than the mainstream has ever realized. They believe that the lack of a particulate field (atoms or ions) or of an E/M field indicates empty space, but it doesn't. Empty space is still stiff with photons, and these photons are what we call charge. And charge isn't a virtual field in this case, popping into existence from a virtual sea or a quantum vacuum: it is real. Charge is more fundamental than E/M, and continues to exist without it. It simply becomes harder to measure in areas with fewer ions.

[Some have read this paper, failed to take the links, and then claimed that I don't offer any correction to quantum tunneling here. [They have said in forums](#) that this paper is only a critique of current theory. It isn't. *Take the links*, where I show exactly where the old equations have gone wrong, and how to correct them. When I link a word in my papers, it isn't linking to Wikipedia or the encyclopedia Britannica or something, it is linking to my previous papers, where I provide new theory and equations for those subjects. As I say above, to correct the current quantum tunneling mess requires a whole slew of corrections to basic quantum mechanical equations. I have made all those corrections, but you have to read more than four pages PDF to find out what they are. If you aren't willing to do that, I can't help you. Obviously, I can't include every correction I have made in each new paper. Most physicists in the mainstream—especially those hanging out in forums and bloviating—are beyond help, but this paper is for those few who demand physical answers from physical problems. It is for those who aren't satisfied parroting the mysticism with which their teachers indoctrinated them.]

Quantum tunneling is one of the clearest and earliest signs of the corruption of physics, a corruption that has by now become endemic. The Copenhagen Interpretation of quantum physics dates from 1926, and quantum tunneling had become a feature of quantum theory by 1928. So we can see that quantum physics was lost to magic and horrible mathematical fudges almost from the beginning. Any real physicist or scientist would have seen the mismatch between data and equations as a sign the equations were faulty. But quantum physicists have apparently never considered that possibility. They have been sitting on the same bad equations now for almost a century, and we still get nothing but salesmanship. No one in the mainstream is seriously trying to correct them. Instead, we see an ever

increasing pile of mathematical finesses. We have reached a time when physics is no longer physical. The failure of the central equations has forced the entire field into mysticism.

And guess what, physicists have found that mysticism sells better than science. The public has always been more interested in magic than in physics. They love to hear about spooky forces and time travel and backward causality and quantum tunneling and wormholes. Rigor and logic mean less than nothing to most people. Fake physics also creates more jobs than real physics would, since we only need one person to write a good equation, but hundreds of people can be included in finessing bad equations for each new experiment. Entire sub-fields of variations and violations and quantum fudging can be created, and *have* been created. This eventually spun out into string theory, which is just a massive subfield of quantum fudging, one composed entirely of fudge. Almost nothing in new physics is connected to reality in any way, by even the slenderest of threads. Every new paper is just someone's fantasy, dreamed up in front of a computer screen and surrounded by great enveloping clouds of magician's math.

You all know this is true, so don't bother denying it. If you have any nut of a conscience, any residue of real science remaining in you, your job is not to deny it, but to get busy correcting it. It is never too late to get on the right path. Gamow and Bohr and Born and Pauli and Heisenberg and even Feynman are long dead and cannot harm you. Their ghosts are being flogged for their sins to science in some parallel universe or grubby wormhole. But there is work to be done: I suggest we do it.

[To read more on quantum tunneling, see [my newer paper on the tunneling diode](#), where I show a far better and simpler explanation using charge channeling.]

*See *The Quark and the Jaguar*, Gell-Mann.

**My paper on this subject ranks number 11 at Google, and has ranked as high as number 4, indicating big numbers and strong interest from somewhere.