

The following paper by Tom Bearden can be also found on the following web sites where it includes more introductory information.

<http://www.cheniere.org/correspondence/index.html>

http://peswiki.com/index.php/Site:LRP:Precursor_Engineering_And_The_Falsification_of_Modern_Physics

Precursor Engineering and the Falsification of Modern Physics

Thomas Eugene Bearden

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This year we will be accenting the astonishingly simple underlying vacuum mechanism for directly engineering physical reality at will. It turns out (as per Paul Dirac) that it is very easy to "tickle" a local vacuum region with little sharp gradient pulses of positive energy so that the tickled vacuum region also contains negative energy/negative probabilities in its ongoing vacuum virtual particle reactions, in addition to the normal positive energy/positive probabilities usually considered.

Here is a magic little formula (that only took me 35 years to write):

[space-time] \equiv [virtual particle flux of vacuum] \equiv [energy]

With this little formula, we suddenly have a completely unified physics, and we have totally eliminated any idea of "empty" space. This formula is engineerable by using an extraordinarily simple process: **Dirac's** local vacuum tickling.

Notice the deltas of each term in the little "identity equation" also identify the same way. So at long last we have finally found a resolution to one of Feynman's stated major problems of physics: previously we have not really known what energy itself identically is. E.g., quoting Nobelist Feynman: **"It is important to realize that in physics today, we have no knowledge of what energy is."** [Richard P. Feynman,

Robert B. Leighton, and Matthew Sands, **The Feynman Lectures on Physics**, Addison-Wesley, Reading, MA, Vol. 1, 1964, p. 4-2].

And it is notoriously false to state that "energy is the capacity to do work", as is so commonly stated. Even the Physics Teacher folks could not stand that gross error any longer, and they published the following article on it:

R.L. Lehrman, "Energy is not the ability to do work," **Physics Teacher**, Vol. 15, 1973, p. 15.ri. The rigorous definition of work is this: work is the changing of the form of some energy. And when the form of 100 joules of energy in Form A is changed to 100 joules of energy in a different form (Form B), then 100 joules of work has been done and the energy is still there but in a now-different form, Form B. We do not and cannot "consume" or "destroy" energy in any special relativity situation. There is no conservation of work law; there is only a conservation of energy law that holds in any special relativity situation (one fixed frame).

In the virtual state vacuum, THERE IS NO EMPTINESS filled with its incredibly energetic virtual particle flux -- instead, there is only that virtual particle flux. THERE IS NO EMPTINESS. We have completely erased the very notion of "empty space".

The common positive energy/positive probabilities "vacuum" is just the "additive" bubbling particle flux resulting in a statistical "positive probabilities" ensemble of ever-higher energy interactions on into the observable state and upwards in it. Such a statistical ensemble of ongoing additive "bubbling" vacuum virtual particle flux reactions, for example, continually creates every "observable" in the universe. I.e., instead of the old mechanical view of an observable object that "it just is and it concretely exists", we have the more advanced understanding that "it is continually being created and 'happening' at an incredible rate".

Quoting Dirac on the arbitrary "removing" of negative energy from physics:

"One gets over the difficulty on the classical theory by arbitrarily excluding those

solutions that have a negative E. One cannot do this in the quantum theory, since in general a perturbation will cause transitions from states with E positive to states with E negative." [Dirac, Proceedings of the Royal Society A, Vol. 117, p. 610.]

Note that in this quotation **Dirac** reveals the extraordinarily simple mechanism for making negative energy in a selected region of vacuum. Simply hit it with some tiny-energy sharp-gradient pulses -- as the little RF pulse "ticklers" that **Kanzius** uses in his **watergas** process -- and also in his **cancer cure**, which in phase one lab animal experiments has had sensational results of curing 100% of the tumors in the lab animals.

We point out the fundamental mechanism directly seen and included by Dirac: a sharp little pulse gradient of positive energy in the local vacuum pops out some electrons from the **Dirac Sea**, leaving behind their "**Dirac Sea holes**". Such a hole is a negative mass-energy electron (the "**dark matter**" our astrophysicists are so desperately seeking), which as a special kind of source charge continually emits negative-energy photons, so that the associated EM fields are negative-energy EM fields (the so-called "**dark energy**" our astrophysicists are also so desperately seeking).

So these negative mass-energy electrons and their associated negative energy EM fields there in the "tickled" Dirac Sea constitute adding negative energy (both mass-energy and EM energy) to the vacuum.

With this more advanced understanding of what an "**observable**" actually is, then when we now introduce a bit of "sharp little gradient tickling" the vacuum in a local area, per **P.A.M. Dirac**, that tickling will produce negative energies in that tickled vacuum as well. And that means that we are adding in "negative probabilities" into that bubbling structure (say, a container of water, in each water molecule structure) so that the entire bubble structure for the water molecule starts "backing back down" its

ongoing creation chain -- in short, it starts "unhappening" at its "highest positive energy end".

If we just use a gross pattern of tickling, we get "overall" unhappening, so the last and highest positive energy thing that made the water molecule possible -- i.e., the OH bond positive probability -- now has much-reduced overall probability. The net probability is the summation of (1) the usual positive probability and (2) the added negative probability due to tickling.

Hence statistically the water molecules in the tickled area start "falling apart" as their OH bonds now have much less probability, and so they just start "unhappening" statistically as their OH bonds start vanishing statistically.

So intermixed bubbles of H₂ and O₂ gas (from those molecules whose OH bond "unhappened") begin appearing throughout the vacuum-tickled "water". But these mixtures are not very combustible or explosive because in that altered (tickled) region now it is very difficult to form the OH bond.

Aha! But if we then pipe the resulting gas bubbles out of that local tickled-vacuum region -- i.e., out of the water container itself-- and a few inches away and into the combustion chamber of a nearby combustion engine, then the vacuum in that combustion chamber is "normal" and not being "tickled". Hence the OH bond is back in its full normal probability, and so the mix of O₂ and H₂ will burn and power the engine, giving no exhaust except water vapor.

This is the real secret of watergas, as rigorously shown by Dr. **John Kanzius** and the results verified by a renowned water chemist. But neither of them seem to realize the actual mechanism involved. This is also the secret of Dr. **Kanzius** tremendous new cancer cure, now proceeding toward human testing by a leading cancer research institute.

In the late 1920s and very early 1930s, the physicists glimpsed the startling

characteristics introduced by negative vacuum energy, and were scared right out of their minds. **Negative energy occurs in the Schrodinger equation and in Dirac's relativistic electron theory, and so there it is in the very foundations of physics.** But in abject fear, the leaders of the scientific community such as **Pauli** and **Heisenberg** figuratively beat the daylights out of **Dirac**, and ruthlessly ripped **negative energy** out of all of physics possible to do it in. **(As Dirac pointed out, you cannot get negative energy out of quantum mechanics, because it occurs easily and naturally by mere sharp little gradients).**

Tickling the local vacuum with little pulses of sharp gradient sound energy -- as in sonofusion -- also pops out electrons from the local Dirac Sea and produces the same type negative mass energy holes and their associated negative mass-energy fields in the tickled vacuum.

So the ability to (1) "unhappen" things like the OH bond in water molecules, (2) "unhappen" the cancerous growth in a region of normal flesh, (3) "unhappen" the lattice bonds in titanium so that the titanium liquefies at room temperature without heating and can then be "cold-molded" in very large and thick forms such as submarine hulls (a Soviet production process for some decades), and (4) produce certain nuclear fusion bonds in a fluid by use of tickling by sonobubbles so that sonofusion occurs, etc.

The eventual startling applications are unlimited, as comprehensive research develops and extends the technology. We shall be able to "unhappen" essentially any disease quickly and cheaply, by assembling the exactly required "tickling pattern" to "unhappen" that specific disease in the diseased body. We will also be able to turn anything into anything else (such as turning the present hordes of carbon wastes from coal plants directly into gasoline with no intermediate processing, etc. We will be able to clean up the present horrendous nuclear wastes and the vast amount of carbon-containing wastes from coal-burning plants.

The ability to directly engineer any and all "happening" bubble-sets, or any particular part of any of them, is the "final physics" because it leads to the final goal of physics and science itself: the ability to directly engineer observable physical reality itself, at will. The fact that we are radically departing from the accepted notions of "brute force tearing things apart" such as electrolysis, and instead we are letting the all-powerful and all-pervasive vacuum do all the functioning for us, is a very radical and total departure from the present "mechanical energy based" physics concepts and practice of physics and chemistry.

So in abject panic at their glimpse of this "monstrous" and unthinkable portent, in 1934 the leaders of the physics community brutally mutilated and murdered physics by ripping out negative energy vacuum effects, totally arbitrarily.

As **Hotson** stated:

"I think if one had to point to a single place where science went profoundly and permanently off the track, it would be 1934 and the emasculation of Dirac's equation." [D. L. Hotson, "**Dirac's Equation and the Sea of Negative Energy**," Part I, New Energy, Issue 43, 2002, pp. 1-20. Quote is from p. 1.] Available at <http://openseti.org/Docs/HotsonPart1.pdf> . See also D. L. Hotson, "**Dirac's Equation and the Sea of Negative Energy**", Part II, New Energy, Issue 44, 2002, pp. 1-24. Available at <http://openseti.org/Docs/HotsonPart2.pdf> .

Well, as their horrifying glimpse had revealed to the scientific leaders in the late 1920s and very early 1930s, if one uses a mix of positive and negative energy in a local vacuum, then one can easily and directly engineer physical reality itself in that local region -- any observable physical reality at all. Literally (eventually) one will be able to do whatever one wishes with physical reality of any kind.

To give it a name, I call this process "**precursor engineering**" since one is directly engineering the ongoing creative bubble-set of an observable entity, by not only

"happening" the statistical processes involved in it but also by selectively "unhappening" the entire set or selected parts of it.

Today, thank goodness, some very fine physicists -- most notably Dr. **Daniel Solomon**, Dean of the College of Physical and Mathematical Sciences at North Carolina State University -- have published very rigorous papers in the leading physics literature, pointing out that **negative vacuum energy** indeed does occur irrevocably, and it cannot be just "discarded" from physics if one is to follow scientific method rather than pure dogma. Simply Google the appropriate references, or check out a typical reference such as Dan Solomon, "Some new results concerning the vacuum in **Dirac's hole theory**," Physica Scripta, Vol. 74, 2006, p. 117–122. Also check out the many other references at:

<http://front.math.ucdavis.edu/author/D.Solomon>
http://eprintweb.org/S/authors/All/S/D_Solomon
<http://arxiv.org/ftp/quant-ph/papers/0703/0703257.pdf>
<http://arxiv.org/ftp/quant-ph/papers/0611/0611091.pdf>

So if the scientific community will at long last act scientifically, and remove its previous absolutely erroneous removal of negative energy from physics, humankind will have at last entered into the "final physics" and the direct engineering of physical reality itself, at will.

Hopefully "**precursor engineering**" will be born this year in our universities and scientific community, and at long last we will be able to fuel our cars, clean up the biosphere, clean up nuclear wastes, clean up carbon wastes supposedly to be "sequestered" somewhere and somehow, etc. And we will begin to be able to cure any and all diseases that presently so ravage humankind.

And if we can also begin to avoid the typical "man's inhumanity to his fellow human", then we shall enter into a new and truly golden age of plenty, and of freedom from poverty, illness, [and the] pollution of our biosphere, etc.

Thomas Eugene Bearden (January 12, 2009)