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Principles of Electrodynamics

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First published October 25, 2019

I needed some light reading material for the airplane last week, so I grabbed Melvin Schwartz' *Principles of Electrodynamics*, Dover paperback edition, from my shelves. This was first published in 1972, but the Dover edition came out in 1987. Dover editions more widely disseminate popular science textbooks. They also help promote the authors, and we see that with Schwartz, since he won the Nobel Prize for physics in 1988, **the very next year**. This was for the discovery of the muon neutrino. Unfortunately for Schwartz and the other winners that year, I have since shown that the muon neutrino isn't a neutrino at all. It is three non-spinning electrons. Also see here.

But that isn't why I am here. I am here to go line-by-line through Schwartz' book, showing you exactly where and why it is wrong. That will help you understand what my new theories do for electrodynamics. You can follow along online for free here.

But first, let's look at Schwartz' bio. He came out of Columbia, where he worked under I. I. Rabi. Both are Jewish, of course. Rabi also won the Nobel Prize. He won in 1944 for his work on Nuclear Magnetic Resonance, which I have also corrected and updated in major ways. He misunderstood the Stern-Gerlach Experiment, dooming the rest of his theory. He worked with Bohr and Pauli in Hamburg, bringing their mistaken theories to the US. He was a postdoc with Arnold Sommerfeld in Munich. We will see Sommerfeld below. Back in the US, Rabi was funded by the Rockefeller Foundation. So we are seeing all the usual red flags. Rabi became friends with Oppenheimer, Szilard, all the usual suspects, becoming a consultant to the Manhattan Project. As for Schwartz, he got his

PhD at Columbia in 1958 and was immediately hired as an assistant professor. A red flag. He was a full professor by age 30. His Nobel Prize was for work done in 1962, so he waited 26 years. They now wait, what, 26 days? Schwartz was long connected to Brookhaven and through it to the Department of Energy. Red flag. He later became CEO of Digital Pathways, which manages secure data in Silicon Valley—so, another red flag.

We will start on p. 33, where Schwartz says,

About 10^{24} electrons are typically packed into a cubic centimeter of solid material and provide the bonds which keep it together.

I have shown this isn't true. The bonds which keep anything together are created by charge photons, not by electrons. As a matter of both theory and math, this changes everything, as we have seen in hundreds of papers.

Next he says,

The outermost electrons in each atom are relatively easy to move about and can act as charge carriers in conductors.

Again, fantastically lazy and wrong. Like his colleagues, Schwartz rushes by this as fast as he can, as if he couldn't care less what the actual mechanism is. He appears to be interested only in math, and can't be bothered to speak clearly or sensibly about any mechanics, not seeming to realize that all the math is absolutely dependent upon this mechanics.

On p. 34, he tells us that if we removed all the electrons from two one-gram pith balls 1cm apart, the force between them would be 100 billion billion tons. Not true, since most of the force between them, with or without electrons, is determined by their charge fields. That is, by the amount of charge their nuclei can channel. Jettisoning electrons would help channeling a bit, since it would unclog those channels. That is why atoms ionize before bonding. But to get his number, Schwartz is assuming charge equality between protons and electrons, so that if we remove the electrons, the protons are no longer equalized. But this isn't how it works. To start with, electrons *aren't* charge matched to protons, having only about 1/1800 their charge. Besides, forces between macro-objects like pith balls aren't determined by charge matching of electrons and protons, they are determined by unbalancing EM and gravity. See my paper on Cavendish for more on that. Also see here.

Just below that, he says that in conductors, the electric field causes the outermost electrons to move relatively freely from atom to atom. Again, no. Only ionized electrons are free to move, and those always come from the north pole of the nucleus. But even so, it is not the movement of these electrons that causes conduction or electricity. They may move between adjacent nuclei, but they are mostly along for the ride. What causes the electric field and responds to it is the charge field—real charge photons channeling through the nuclei and baryons, and moving between them.

On p. 35, Schwartz analyzes a real problem, that of concentric metal spheres, one within the other. Each is given a separate charge, and Schwartz then does the math. He says that if we go inside the inner sphere, E=0, since there is no charge there. Again, criminally sloppy, since that isn't true. It is true that there would be no *summed* charge at the center of the sphere, since vectors would cancel. But the interior of the sphere would still be stiff with charge photons. Is he suggesting the interior is some sort of charge vacuum? It can't be, since the metal will be releasing charge into that interior all the time. So although E=0, charge never does. This is what I mean when I warn that the E-field has to be kept separate from the D-field, D being charge. The D-field can never be ignored, because it is foundational, both physically and mathematically. Only by forgetting that have 20th century physicists created vacuum catastrophes, Dark Matter meltdowns, and the collapse of solid-state physics (see the pathetic Drude-Sommerfeld model).

But Schwartz then says there can be no charge density on the inner surface of the inner sphere. False. The electromagnetic field there is zero, but not the charge density. The EM field isn't determined by charge density, but by summed charge. Or *change in* charge density. He says that all of the charge of the inner sphere must appear on its outer surface, but that is also not true. Most of its *expression* of the EM field must appear there, but not all of its charge. He says there is no field within the body of the second conductor, which is again not true. There may be no E field there, but there is certainly a D field. That sphere is material, therefore it must contain huge amounts of charge. Likewise, he says that the charge of the outer sphere must all be on its outer surface. "All of Q_1 must appear on surface b." Nope. Its *resulting* charge, which causes E, will be there, but charge will be everywhere. Or, to say it another way, **flux** of Q will appear on b, but not all charge. Schwartz is refusing to differentiate between the E-field and the D-field, which will cause major problems later.

We have seen this is a common shortcoming of these Jewish Nobel winners all the way back to Bohr: they can't seem to keep x and Δx separate in their minds—an undergraduate level error. Remember, we saw Bohr conflating Δ*p* with *p* in some of his most important equations, thereby mistaking the electron for the photon in the first years of quantum physics. That is almost the same mistake as this one of Schwartz, since they both serve to bury the photon and the charge field.

We are told in Schwartz' bio that this book became a standard reference due to its particularly clear exposition. I am showing you that simply isn't true. It is a rushed and nonchalant and even arrogant exposition, assuming a complete knowledge of the field that the author doesn't have. Every question of theory or mechanics is brushed aside as immaterial and unworthy of notice.

On p. 36, Schwartz wants to demonstrate that the electrostatic force is conservative. That is, work done by a charged particle is independent of path. This is false for pretty much the same reason: only the *summed* work is independent. But since the summed work and total work are not the same, this misunderstanding can have serious consequences. Because "summed" and "total" seem to mean the same thing, and sometimes do, physicists have assumed they are the same here. They aren't. Because work is dependent on force, and force is a vector, you can get offsetting vectors. But to understand the field at each point, it is important to treat force as something that cannot be negative. In that case, electrostatic force is *not* conservative, and it may matter quite a lot which path is taken. In fact, this is how field choices are made at the ground level. If paths didn't matter, neither photons nor ions would have any reason to take one path rather than another. But we know that isn't true. Other math and mechanics depends on particles taking a least or most path of some sort. If paths were conservative as Schwartz is arguing, no path would be least or most.

Think of it like going to the grocery store. There are a lot of ways you could get there, and they all sum the same. They all start and end at the same place, so as a matter of elevation, say, there is no total difference. You will climb up as much as you climb down. Hence, the field is conservative. But as a matter of work, they aren't conservative at all. It will be far harder to climb a huge hill and come down it than to walk a level path. So if you are conserving energy, you will always choose the levelest path.

But this is why physicists love sums, summations, and sum-overs: it absolves them from having to think about this stuff. It absolves them of having to actually transport themselves in imagination down into the field and figure out what is going on at each point. So they tend to ignore differentials, preferring to sum everything. Feynman was the absolute master of this, of course, although all the big names of Modern physics have been wizards of this trick. We saw a similar fudge in the ellipse problem, where mathematicians and physicists have been summing the orbit for centuries in order to hide major theoretical and mathematical contradictions. They had successfully buried that problem since the time of Newton, and it required me to dig it out at last. To gloss it, given the field assumptions of Newton and the rest, an orbiting body would have to be speeding up and slowing down in a very specific way to fit the known path. But nothing in the field could explain those speed changes. The body would have to be making changes upon itself, something that is impossible. But by summing the orbit, physicists were able to hide the problem. They refused to look at specific differentials or intervals. And, once more, this failure ended up hiding the charge field. It was the charge field creating the second field in Celestial Mechanics, not "remaining inequalities" or a naked Lagrangian.

So, if Schwartz is limited to the E-field, his proof of conservation is mostly true. But in terms of the D-field, it is false. So it then depends on the definition of electrostatic force. Is electrostatic force a result of the E-field or the D-field? Well, again, that is unclear, and we have since come to see that it depends on the experiment. In more basic experiments, it is often a result of the E-field, in which case Schwartz' theory and math often works. But in experiments designed to test more subtle questions about the field, we have found it doesn't work, and I am showing you why. The D-field is more fundamental and more physical, the E-field being more abstract. The E-field yields only sums, but can't tell us anything about basic mechanics. From an engineering standpoint, that was fine for a long time; but ignorance of the D-field soon caught up with them, as I have shown in the Drude-Sommerfeld model of solid-state. Sommerfeld tried to match his math to the electrons, and wasn't able to solve the problem that way because the the electrons weren't determining the motions or the paths. The electrons were fitted to the E-field, you see. But the real mechanics was a function of photons, or the D-field, so the math and paths needed to be fit to that. Which I have done at last, getting rid of electron holes, tunneling, and all the rest of that mess.

Schwartz' mathematical proof in these pages on conservation is completely fudged, starting with his use of Stokes' Theorem on p. 36. He wants to show that $\nabla \times E = 0$, so he goes back to p. 29 and equation (2.1.4), which is just an expression of Coulomb's equation.

$$F = q_2 q_1 (r_2 - r_1)/(r_2 - r_1)^3$$

There the r's represent **positions in space** of charges. In other words, they are points. I thought it was strange that he wrote Coulomb's equation like that, but we are now seeing his trick. Coulomb's equation is more often written like this:

$$F = kq_2 q_1/r^2$$

Schwartz' expression reduces to that, but in the second form r is a distance between charges, not a position in space.

But we are onto Schwartz, for very soon he gives us this:

$$\nabla \times (r - r') = \nabla \times r = 0$$

You see how he just jerked you? The curl of a straight line equals the curl of a point equals zero? We have seen other Nobelists fudging us like this, including Einstein, Feynman, Landau, and many others. But just ask yourself, what is the curl of a point? Curl is a **vector** operator, and can't be applied to a point in real space. A vector is by definition a length with a direction. A point or position has no length or direction, so it cannot have a curl. Nor can its curl be zero. *It cannot be anything*.

So even if you don't know what curl is and have never seen that upside-down delta, you can see his obvious fudge here. It doesn't require you understand that operator. It only requires you understand the difference between a point and a length.

I will be told that Wiki gives us the definition of curl, and it is: "At every point in the field, the curl of that point is represented by a vector." So we do seem to have curl at a point. Yes, we have curl at a point in some **mathematical field**. Meaning, we create this operator we call curl, *we create a field of those operators,* and so every point in that created mathematical field has curl. But we cannot have curl at a **physical point, or a point in space**, since there is no extension there. See my papers on the calculus for more on this. The length (r - r') in Coulomb's equation can't be a length in a mathematical or operator field, since the r's must be telling us some point in real physical space. In other words, a position. So the idea of curl cannot be applied. Remember, curl is already a 3D concept, and del or nabla ∇ is 3D even without curl. It is the partial derivatives in x, y, z. Well, you can't have the partial derivatives of a point, can you? A point isn't 3D, it is 0D. This is first semester calculus: the calculus applies to **differentials**, remember? Intervals. Lengths. Changes. You can't have any change at a point, therefore you can't have any calculus there. No curls. Therefore, if r is a point in space or a position, then

$$\nabla \times \mathrm{r}$$

Is meaningless. Saying it is zero is equally meaningless, since it couldn't be anything but zero. And writing

$$\nabla \times (\mathrm{r} - \mathrm{r'}) = \nabla \times \mathrm{r} = 0$$

is even more meaningless, since it implies that a point and a length are somehow equivalent mathematically. No one who understood calculus (or wasn't trying to fudge you) would ever write such a triple equation.

We continue see what a muddle this is, since Schwartz then says, "We conclude that $\nabla \times \mathrm{E} = 0$ as long as r is not equal to r' at any point in our integral." How could it be, since in Coulomb's equation, as he has written it, r is the position of one charge and r' is the position of the second. How could they be equal? If they were equal, then we would have no charge separation and no possibility of a force. And if they were equal, why would we need to write the second one as r'? We could write them both as r, couldn't we?

And Schwartz makes use of a further trick here, changing notation between p. 29 and p. 36. I showed you above the equation on p. 29, but on p. 36, it changes subtly to this:

$$\mathrm{F} = q_2 q_1(\mathrm{r} - \mathrm{r'})/(\mathrm{r} - \mathrm{r'})^3$$

You see what he did there, and why? He got rid of the subscripts, because they might remind you each r is a position. You might remember you can't put a position into an integral, so he switched to primes to fool you. This whole book is the usual conjob.

Schwartz makes his fudge even more obvious at the bottom of p. 37, where in equation (2.4.7) he evaluates the potential function at a distance r from a point charge. So r has now been explicitly defined as a distance, not a position. And yet he freely transitions from r as a point to r as a distance in the first part of equation (2.4.8). He has a distribution of charge ρ(r') in the numerator of his integral and (r – r') in the denominator. For that to make any sense, he would have to be claiming a distribution of charge at the point r'. How can you have a distribution of charge @ a point charge?

He even integrates with respect to r. Is he integrating with respect to a point? Hard to tell what the fuck he is doing, since this is all a hash of the worst sort. And I remind you, they gave this guy a Nobel Prize.

So we are in the presence once more of fake calculus. Pretend calculus for the mathematically insane. I had not foreseen that I would be dealing with this again. As you saw above, I came in expecting only to correct theoretical problems in the EM field. But I should have known. Wherever these guys go, they take their fake calculus and their entire bag of tricks with them. As here, they are always trying to pass by you some manipulation you couldn't get past your highschool calculus teacher. Yes, we see again a Nobel Prize winner who hasn't mastered first-year calculus. All he has learned to do is fudge integrals. There must be a class for this I missed: **Fudging Integrals to Fame and Fortune**. But this is of course why I don't much use integrals. Not only are they not useful for fundamental field theory, they are far too easy to fudge. As you see, Schwartz can slip a position "variable" into an integral and non one spots it for decades. Integrals are only useful for final calculations, after all the theory has been done.

But how could I be the first to spot this? This popular book, reads by millions of physicists, and I am the first one to realize all this math is fake? Nobody before me has ever looked at these foundational equations of the EM field and balked? No grad student has ever stood up and said, "Hey, prof, this math is all total BS! You're just snowing us!" Maybe they have. Maybe they got up and changed fields, moving to a more honest university department. . . like art criticism, say, or economics.*

The absurdity continues in the second half of p. 38, where Schwartz proposes to prove the E field is perpendicular to the surface of a conductor. He draws a circular and closed path of integration along the surface, of some length but of negligible width. And here is a direct quote from top of p. 39:

Since there is no field inside the conductor, we conclude that the contribution of the leg outside the conductor must be zero. Hence, there is no tangential component of the electric field at the conducting surface.

Say what? Talk about begging the question or leading with your conclusion. There may be no tangential component of E there, but his little path didn't prove anything. Being a totally imaginary path, taken by nothing, and connected to no theory or field, it is completely meaningless. It is an empty illustration. To see what I mean, say I created a path of integration from here to the grocery store. On the forward path, I go to the grocery store on a level path, but return home by going over a mountain. Since the path is a closed loop, I can say the field is conservative. By Schwartz' logic, I can then say that because the forward path has no elevation, the return path must also have no elevation, and therefore no total elevation change on the path.

And Schwartz' path is absurd in yet another way. He has made the length of the legs that cross the surface negligible, so I could use that as proof there was no E field *perpendicular* to the surface. Negligible means negligible, right? That's my proof. But in reality, Schwartz's little drawing doesn't prove or even indicate anything about the E field, either perpendicular or tangential, so we don't know why he included it. We can only imagine *he doesn't know* why there is no field tangential, and this is all he could come up with at short notice. But I can tell you the reason there is no E field tangential or parallel, and it is because E is a measure of differences in charge densities. Since the charge densities are the same (but not zero) all along this surface, there are no potential differences, and therefore no E field. All the changes in charge densities are perpendicular, so the flux of the E-field will also be perpendicular.

And why are the changes in charge densities perpendicular? Because that is the definition of a surface! Any surface is defined as a quick change in molecular density, isn't it? Well, a change in molecular density implies a change in charge density, since it is nuclei that are recycling charge. More material will channel more charge. Just from that, we would expect every surface to be emitting charge at a perpendicular. Everything emits this way, not just conductors. Conductors simply emit better, since they emit more linearly.

Let's skip ahead to p. 42, where Schwartz introduces the mean value theorem. He says,

The theorem states that in any charge-free region, the average value of potential on the surface of any hypothetical sphere is equal to the value of the potential at the center of the sphere.

Well, we have already seen that theorem is true even in a charge-*rich* region on preceding pages, so I don't know why he is bothering to prove it for a chargeless region here. As long as the sphere is equally charged, that theorem is pretty much a tautology, given the definition of a sphere. It has nothing to do with the E-field, and was a known quality of spheres back to the time of Archimedes. But what is so funny here is the idea of potential in a chargeless region. If the region is charge-free, there is no possibility of electrical potential, so again his equations are just bombast. Of course the Laplacian is zero in a charge-free region, but that has nothing to do with the mean value theorem or the sphere. Everything is zero for a charge-free region, no matter its shape. Why would anyone write EM equations for a charge-free region? It would be like writing hydrostatic equations for a water-free or liquid-free region. Besides, there is no such thing as a charge-free region. It doesn't exist, but especially not inside a galaxy; especially not near a star; especially not on the surface of a fairly large planet. So Schwartz talking about charge-free regions in a book on electrodynamics just proves he doesn't know what he is talking about.

But again, you have to understand what Schwartz is doing here. He didn't start his E-field analysis with the sphere by accident. He chose it *because* it is giving him all these zeroes in the field. He then takes those zeroes as some universal outcome of the EM field, which allows him to "prove" the gradient of the potential is -E. But although that may or may not be true, he hasn't **proved** it one way or the other. His proof is pushed and fudged in multiple ways, so all he has proved is that he doesn't have any idea what is going on mechanically.

Schwartz then mentions Earnshaw's Theorem, which he says states that in a charge-free region the potential cannot have a local maximum or minimum. Yes, I think that would pretty much go without saying, since it is sort of hard to have maxima or minima in no field. But if we check Wiki, we find Earnshaw's Theorem doesn't say that. It says that a collection of point charges cannot be maintained in stable equilibrium, based only on their interaction. A collection of point charges is not a charge-free region, is it? However, Earnshaw's Theorem is equally useless in that form, since there is no such thing as 1) point charges, 2) static charges. The charge field is composed of real photons, which have both size and spin. And since they are always moving c, they are not static. So it just perverse to build a theory and math on static point charges, or to write theorems about them. We aren't in need of any theorems concerning static point charges, are we? We are in need of theory concerning charged particles moving c, spinning, and with definite radius. This is the theory I am providing. This is why I was able to get on so quickly by ignoring pretty much all mainstream theory and math. It is mostly composed of piles of useless garbage like Earnshaw's Theorem, which students are forced to learn and regurgitate. It therefore acts as nothing more than a wall to real physics.

Besides, remember that Earnshaw's theorem comes from 1842. Why were they still teaching naive field theorems from 1842 in 1972? In 1842, they didn't even have an electron, much less a photon. Earnshaw's theorem should have gone out with leeches and trepanation.

On p. 45, Schwartz discusses the electric dipole moment, which I have already criticized in my paper on the dielectric. He claims that an applied E field will polarize matter by simply shoving orbitals over, but they know this isn't how it happens. They don't even allow you to think of electrons as being in orbitals anymore, diverting you into probability clouds, but when they need some naive visuals, they allow themselves this ridiculous mechanism. My theory doesn't require anything like this, since the nuclei are recycling charge. The direction of channeling creates dipoles without any shift. In other words, the nucleus has poles and definite channels that create this polarization, and it pre-exists any applied field. My diagrammed nucleus has several levels of polarization, in fact, making it bipolar or even tripolar (polar in three separate ways)—which allows me to explain multipoles with straight mechanics. The nucleus is polar in that it is spinning about an axis, like the Earth. It is polar again in that it contains both electrons and positrons, not just electrons. And it is polar in that the photons recycling through it are already polar themselves. The photons coming in the north pole are spinning opposite those coming in the south pole, so we have photons and antiphotons to work with. We have charge and anticharge. This gives me many more degrees of freedom than the current models.

Next, Schwartz evaluates the field surrounded two stationary and opposite charges at some distance apart. He fudges some more math to do that, but again this is just busywork, since charges never exist like that. Charge is streams of moving photons, so this is a problem we will never have to solve. He is trying to create a dipole—which does not exist like this—out of point charges—which do not exist, so again this is all simply perverse. It may have made some small amount of sense as stop-gap theory 150 years ago, but now it makes no sense at all. We now know about photons, so why are we still teaching EM theory in terms of point charges and mythical dipoles? Any math built from these old models must be either misleading or dead wrong, so why not ditch it and start over? As I read this, I can't help shaking my head at the sheer futility of it all. It is the same response I have when reading a physical chemistry textbook. It is like reading Aristotle or something. They might as well solve these problems with orreries.

They try to cover the vulgarity of the theory with fancy math, but I am showing you the math is just as crude, coarse and klutzy as the theory. Just because it is composed of complex operators doesn't mean it is impressive. Fudged math is fudged math, no matter how complex.

At the bottom of p. 49, Schwartz says,

the entire effect of polarization can be taken in to account by introducing a polarization

charge equal to -∇ · P and calculating as though this were a real charge.

Yeah, it could also be taken into account by calculating the real charge instead. Anybody ever thought of doing that? As you see, Schwartz admits he knows he isn't calculating the real charge, he is only building a system and trying to match it to the real one. However, since he is limiting himself to very old and outdated ideas like point charges and dipoles, his match must always remain very rough. If he has the wrong particles in the field—or NO particles in the field—he can never hope to match the field except by a long string of pushes and fudges. Which is what EM theory now is. This is the sort of theory we would *expect* to lead to vacuum catastrophes and dark matter meltdowns, since it contains no real charge to start with. Point charges aren't particles, so Schwartz' field is basically empty. His charge is a field of math only, which is precisely why he gets confused and says that his areas are charge-free. *All* his theory and equations are charge-free, since no real particles are carrying it.

On p. 50, Schwartz works backward from his E field, which he has written in terms of dipole charge P, to find the D field, which he writes in terms of free charge F. Free charge is not paired off as part of a dipole. This is upside down, since E should be proved starting with D, not the reverse. D is primary, E secondary. D defines E, not the reverse. D is the ground-level field, defined by the motion of charge photons, so it should never get a first mention on p. 50, as a misdefined subset or cohort of E. In addition, it is simply false that D is a measure of free charge, while E is a measure of dipole charge. There are no dipoles of the sort Schwartz is talking about, so they can't define E. And D is simply the charge field, which is always "free." Meaning, it is always moving c, even while being channeled. So it is free in that sense. It is also *never* free, since it is always being channeled in some way by matter. So its freedom isn't the question. The question is what level of interactions are you tracking. If you are tracking the motions and collisions of photons, you are in the D field. If you are summing those motions to determine the motions of larger ions, you are in the E field. By Schwartz and his buddies never understood that. They didn't understand it because even Maxwell didn't understand it. Modern physicists don't know more about this than Maxwell did, they know *less*. No one has ever understood that E and D are at different levels of abstraction. They don't exist side by side or on top of one another. D exists beneath E, and *determines* it. E is like a log in a stream, while D is the stream. If you are writing equations for the motions of floating logs, you could ignore the stream, writing the field as a direct interaction of logs. But since the motion of the logs is actually determined by the stream, you would obviously be better off to write equations for the stream, fitting the logs in later. Electrons are like logs in the photon stream. And since there is far more stream than logs, it would be ridiculous to define or prove the stream as a function of the logs. You should define the logs as a function of the stream.

Schwartz sort of admits that, since he is not completely unaware of experiment. He admits the distribution of free charge doesn't determine D completely, since polarized material with no free charge can give rise to an E field near it. **"Hence, we would have a D field in the complete absence of any ρ_F. The magnitude of D would depend on the magnitude and distribution of P."**

Yes, though that contradicts the math he just did. And the truth is actually much greater than that, as I have told you again and again. The magnitude of D doesn't *depend* on P anymore than it depends on F. It doesn't depend on anything, since D is the independent field, not the dependent field. D determines both F and P, not the reverse. Everything depends on D. D doesn't depend on any charge distributions, since D *is* the charge distribution; or, more precisely, the charge **motion**. And D doesn't depend on dipoles, since there aren't any dipoles of that sort. But even if there were, D wouldn't depend on them, it would *create* them. Following mainstream theory, D would create the dipoles, which would then create E. E is always the **resulting field**, never the causal field.

So you see how mainstream physicists have again gotten their causes and effects reversed. We have seen it a hundred times. Everything is upside down. They think they need a unified field, when what they need is an un-unified field. They think they need to define D in terms of E, when they need to define E in terms of D. And so on.

I may continue pulling apart this text later, but for now I need to get back to other work. I find such analysis tiring, not so much from its difficulty, but from its grubbiness. After a few pages I feel like I have been slimed by a giant snail. I feel the need to towel off.

*That was a joke. I hope you got it.