

DISCUSSION QUESTIONS ON LINKED-IN

WHAT IF, everything you ever thought you knew about electric generators and EV recharging was already outdated?

Would anyone notice - if a new generator technology reversed the EV Regenerative Braking paradigm and created Regenerative Acceleration instead?

Mike Elwood, Chairman Electric Mobility Canada and Vice President of Azure Dynamics
"This is a freakin game changer!"

Al Cormier, Executive Director Electric Mobility Canada
- "I am writing to ask you to submit what you feel would be an appropriate document to describe your regenerative acceleration technology for circulation to our Committee members"

Dr. Habash, University of Ottawa
- "This is several new chapters in physics"

Dr. Stanley Townsend, University of Toronto
- "A very significant advance in applied physics & in safely & successfully handling a new source of electric power"

Dr. Evstigneev N.M., Institute for System Analysis, Russian Academy of Science
- " A number of your experiments are not lying in the field of Maxwellian electrodynamics"

Professor Joseph Shin, Concordia University
- "This is absolutely fascinating stuff you are doing"

Mike Simpson, Transportation Analyst Rocky Mountain Institute
- "You seem to have made an interesting discovery. Our internal physics experts review this information and have determined that it is very interesting work"

Donald Wallace, Executive Director Ontario Centre for Engineering and Public Policy
- "Would you be willing to contribute an article on this technology to the Journal for Engineering and Public Policy?"

David Mann, Canadian Association for the Advancement of Science
- "If possible would like to meet with you to discuss your approach to the Association and of course to get a better feel about the physics behind your invention. I would still like to see what you are doing and perhaps we can include some of your material on our website newsletter?"

Omar Mendoza, Program Manager Energy & Environmental Quality Air Force Research

Laboratory Wright Patterson

- "We really are more interested in developing its use and application for military power requirements"

Gilles Leclerc, Canadian Space Agency Space Technologies

- "I have asked Mr. Gilles Brassard, A/Director, Spacecraft Payload here at the Canadian Space Agency to look at your technologies and to visit your laboratory"

Erik Clark NASA-Goddard Space Flight Center

- "The magnetics lab here at Goddard expressed some interest in having you come down to do a colloquium"

David Suzuki CBC The Nature of Things

- "I don't believe it...my job is not to promote a new invention to the public"

The Heins Effect

<http://evworld.com/article.cfm?storyid=1890>

EV World's Tech Editor investigates Thane Heins' inexplicable discovery

By [Michael Brace](#)

Open Access Article Originally Published: July 09, 2010

I remember when I was in college and read about the *Josephson Effect* for the first time. I was studying to be an Aerospace Engineer, but I had made cryogenics and cold-temperature physics a hobby and followed the science with great interest. In the '70s (about the time I was in school) Brian David Josephson discovered that electron pairs undergo quantum tunneling with zero resistance when crossing a barrier separating two [cryogenic] superconductors. He also discovered that the effect can be manipulated by varying a magnetic field at the junction where the tunneling occurs. This phenomenon was named after him. And, while current applications include the very precise standardization of the volt at the time of his discovery, I also got the impression that he wasn't too sure as to what else he could do with it.

Regardless of how insignificant his discovery was thought to have been at the time, it was a significant enough of a discovery to allow him to share the Nobel Prize for Physics in 1973. As history has proven, there have been several new technologies [based on this effect] and it has proven in more ways than one to turn a profit.

So maybe *Necessity* isn't always the *Mother of Invention* and occasionally it has to work in the other direction as well. Has Thane C. Heins from Ontario Canada done the same thing; has he discovered a law of physics hereto unknown but intriguing enough to spur the imagination for some modern-day Teslas? MIT thinks so, as do a host of other legitimate laboratories. And so does Thane.

I became aware of Thane's efforts several years back because of my work in EVs (Electric Vehicles). If you had invented an electric motor/generator that can actually help drive itself, you could be sure other EV engineers [like me] might take notice of this 'device'. And that's just what Thane has done; in laymen's terms he has a 'device' that has figured out a way to take the magnetic resistant forces produced by a permanent magnet generator (aptly called EMF; Electro Motive Force) to work for, not against the generator. I'll say it again, but first an educational primer on motors and generators.

Whenever you move a magnet though coils of conductive wire you create an electrical current from which you can draw from at the ends of the wire. Conversely, whenever you run an electric current though coils of conductive wire you stimulate a magnetic field in those wire coils; this magnetic field is used to attract the magnets in a rotor to produce rotary torque. In the first case you are operating a conventional electric generator, and in the second case you are operating an electric motor. In both cases the strength of the electrical current, or of the magnetic field, depends on the strength of the complimentary component. That much we all learned in high school physics class.

However, if you went on to learn more about electric motors, you also learned that the EMF produced by generating a current in the coils of the generator normally works to slow a generator's rotor down. This magnetic field serves to repulse the very same magnets generating the current, so left unattended the rotor [with the magnets] wants to slow down when you remove the rotary torque from it. Not so, according to Thanen's work. He has figured out a way to configure the coils in his generator to switch the polarity of the EMF so that it serves to assist the rotation of the generator rather than hinder it. In effect, it becomes its own motor.

If you are scratching your head right now trying to figure out how this perfectly logical argument seems illogical, don't worry, you're not alone. Every report I read from every lab that tested his 'device' ended up pointing that out in their summary as well. They don't know why it works, or just how it does what he said it would do, only that if you asked the 'device' to provide more electrical power [through load] it would not only do so, but the rotor would speed up AND the input torque to the rotor would drop at the same time. You can see why electric car enthusiast and R&D engineers (such as myself in both cases) would be interested in Thane's discovery, as are several other companies in which he is working with to do more show-n-tells.

Be careful here...if you think about what he has done you might be tempted to say his device defies the conventional laws of physics. And (even as he admits) you might be right. But then again that's why David Josephson's 'effect' uses the word "quantum tunneling" and not "conductivity" to explain how a current passes though resistive material with no resistance. We too may need to re-define the laws of electro-mechanical physics as quantum physics has.

Now to the meat of this article: Thane has asked me re-introduce his ideas to the media in such a manner as to get most readers to grasp his discovery without dismissing it due to a hundred years of preconceived notions. Not an easy task and I told him I would probably fail just as the other journalists before me have tried [and failed]. Most failed, not only because of

preconceived notions about what they learned in physics class, but because they couldn't understand the "how or why" of the 'device' nor his visions for its future.

However, unlike most journalists writing about technology, I am a degreed engineer with over 25 years experience as an R&D engineer with over a dozen patents covering 'devices' and methodologies that have never been seen or done before. Knowing that, you might think I would believe myself up for the task, but I don't; and for the same reasons that other journalists can't convince you (the reader): knowing what he knows about how his device operates, he can't clearly engineer his way from what he has to what it would be good for; he only has some [what he assumes to be] clearly obvious future uses but he's not 100% sure if he can get there from here without a lot more experiments and prototypes. The only problem is that path takes a lot of time and money.

As I said above, part of his challenge is finding a home for this technology, but as in all new discoveries of physics you have to define the parameters of the discovery before you can figure out where your best shot of success is. Thane has an idea of what his 'device' would be good for, seven of them as a matter of fact; anything from a pure generator to a pure electric motor and everything in between...but all un-vetted in the real world of practical uses because [from an engineering perspective] he doesn't know enough about it to design it into an engineered solution (and neither can I); we both need help here.

Couple his discoveries with his imagination and personal convictions -- for the world to go electric sooner rather than later -- you end up with a highly enthusiastic inventor who can't explain himself to the average education level of the general public (much less the technically suave ones). Add to that the consequences of not be able to engineer a good evolutionary course for the 'device' and you understand why (as Tyler Hamilton, columnist for the [Toronto Star](#) put it) "...most [people] just walk away not willing to put the time into helping Thane validate it. And why should they?" You may or may not agree with Tyler's statement, but that last part I understand. Why should they?

I think the more appropriate question here would be: What's in it for them? Unfortunately most of the general public no longer believe that the days of Dr. Jonas Salk (inventor of the polio vaccine who gave it away to mankind for free) will ever come back, and as most pharmaceutical companies will tell you, 'no doctor endorsed by us would give anything away for free; if he/she did they should be labeled as a quack.' Well, maybe I exaggerate a bit, but you get the idea.

I run a lab with over 100 dynamometers, everything from fractional horsepower to over 400 horsepower, and I offered to retest his 'device' for the umpteenth time, but unless I knew what application I was testing it for it would all be redundant and not prove to anybody else what he (and others) already know: his device does what he says it will do but that doesn't mean it will do what he thinks it can do. So there, I have tried to get our loyal readers on the same page and I hope I have succeeded.

There in lays another dilemma: how does one convince others that the age old axiom "If it sounds too good to be true it isn't" may not apply here?

Unfortunately this brings me back to my other reason for writing this article: how to explain to Thane (or any other person for that matter) that in today's MBA -- driven world of 'show me the money first' until he actually defines his 'device' for at least one profitable application, and prove it to the experts that his device works in that application, you can't expect anyone (or any profit-driven company) to help you 'validate' your ideas (much less believe them)...well, anyone except other innovators who have earned a living with their noodle instead of OPM (Other People's Money). But I understand he has found some of them already.

Thane tells me that he has NDAs with several companies and that he is doing just that: making a prototype device that is application specific. Furthermore, he's not asking me to help him looking for investors; he thinks he has enough of those. He asked me to write this article because he's hoping to change the public perception of his discovery so that two other changes could occur: the economy of the world needs to end its dependence on oil sooner rather than later and you need to change your beliefs in the laws of physics. And from what we both know he will never accomplish the first feat in a timely enough manner without accomplishing the second one as well. I for one hope he succeeds on both counts.

Am I right, or did I miss something? More importantly, was I in the least bit successful? Did I open your mind to the possibilities? For his sake--and all of ours-- I hope so. So you tell me...

Video Demonstrations:

Introduction to Regenerative Acceleration Generator Technology

<http://www.youtube.com/user/ThaneCHeins#p/u/0/jYi2OyS5cK4>

DC Electric Vehicle / Bike Test

<http://www.youtube.com/user/ThaneCHeins#p/u/1/wGvOBDCh7sA>

Torque Paradigms - Conventional Generator vs Regenerative Acceleration Generator

<http://www.youtube.com/user/ThaneCHeins#p/u/2/RC06V8vXUqI>

END STORY