

FULCRUM

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Fulcrum focuses on the science of creation as revealed to Walter Russell. Dr. Russell, artist/philosopher/illuminate, spent 35 years describing the Creator's multidimensional creation process to scientists and lay persons. Known as the Russell Cosmogony and published in several different written editions, the concepts revealed to Dr. Russell during his 39 day illumination in 1921 describe our multidimensional Universe as an extension of the One substance of God. More specifically all matter is described as Light. The Light of Thinking Mind spirally winds in centripetal vortex motion the One substance into the many forms we witness. Mind also unwinds through centrifugal vortex motion all manifest form into the formless zero from which it appeared.

The Russell Cosmogony can be found in its most mature form in *A New Concept Of The Universe, Atomic Suicide?*, *The Home Study Course*, and *The Secret Of Light*. His earlier descriptions can be found in *The Universal One* and *The Russell Genero - Radiative Concept*.

Fulcrum is now a tertiary and greatly expanded forum in which scholars and students can interact to exchange insights and perspectives on the interpretation and application of the principles of the Russell Cosmogony. *Fulcrum* is engaged in extending the understanding of the Russell Cosmogony as it applies to all of our civilization's institutions that this teaching might continue to grow and act as a mighty seed to assist the birth of a peaceful and sustainable culture.

As the editor I intend to publish articles by creative thinkers, artists and inventors that can help demonstrate the Russell's principles and make a difference in the direction of our world today- right now! Understanding the whole cycle vision of Universe as given by the Russell's and application of our understanding by students and scholars is essential for this work to complete its mission for the world. Without this demonstration humanity will continue on in its present beliefs in a Universe dying a heat death, where energy only runs downhill, where there is not enough life support let alone luxury or excess abundance to go around, where God is vengeful and thus so are we, where health is found in magic bullets, and everything is moving to greater and greater disorder- where entropy reigns supreme and unchallenged.

Our present science and technology, economic, social,

psychological, medical, philosophical, political and religious systems are patterned on entropic beliefs and foster entropic thinking and actions.

I will publish:

1) A dialogue with you on the Russell Cosmogony and literature. I invite questions from readers which may be published in each issue and answers given by you the readers or by me that will follow in the next issue. The responses may or may not be definitive. I intend to be clear, although clarity may take time to unfold. Our shared insights may or may not reach similar conclusions. My intent is that by sharing questions and answers, by sharing our perspectives and insights we will stimulate each others thinking and teach each other in the process. I invite you to participate. Have no fear, ask questions and give responses no matter what level of understanding and experience with this work you perceive yourself as having. We all come from, have access to and have our present being in the same source, the same source and being that the Russell's had.

2) Research and articles relevant to the Russell Cosmogony or that have meaning for humanity's need at this moment. What are your insights from this work? Do you know of other scientists, illuminates, or common people that have published works that have meaning for our common needs now? How do you see our institutions (science, art, religion, commerce, agriculture, education, medicine, and our human relations) from your understanding of the Russell work? I am eager to review your treatments and demonstrations of the Russell concepts for possible publication.

3) Articles on current or past experiments in the field of science and technology especially as it relates to non-polluting sustainable energy production and transportation, agriculture, medicine, economics, education, art, parapsychology, psychology, religion and metaphysics.

4) Articles on any application of the Russell work that might make a positive difference in humanity's future.

5) Patent papers on free energy inventions and articles about them.

I am pleased to present this issue of *Fulcrum* to you and look forward to your input and feedback.

Dr. Timothy A Pinder, Editor

Table of Contents

Dialogue

Questions for next issue	pg	1
Responses to previous questions	pgs	1-3

Some of the featured articles for next issue	pg	1
--	----	---

Letters to the Editor.	pgs	4-5
-----------------------------	-----	-----

Featured Articles

<i>Investigation of Reports of the synthesis of Iron via Arc Discharge through Carbon Compounds</i> by Toby Grotz	pgs	6-10
--	-----	------

<i>Old World Math - New World Math</i> & Letter to physicists and newspaper responses by Lloyd Zirbes	pgs	11-14
--	-----	-------

From the Archives

Letters between Walter Russell and Royal Lee, and editors comments	pgs	15-16
--	-----	-------

Letter/test results report from John E. Dube of Alco Valve Co regarding the results of Russell spiral coil experiments, Walter Russell's response and editors' comments	pgs	17-23
---	-----	-------

A brief outline and membership requirements on the Russell Rent		
---	--	--

Mutualization plan	pg	24-27
--------------------------	----	-------

<i>The Universal One Digest In Thirty Postulates</i> and editors' comments	pgs	28-38
---	-----	-------

Patent Papers

Hybrid flywheel/compressed fluid propulsion system for nonstationary applications.		
--	--	--

The George C. Yeh patent	pgs	39-44
--------------------------------	-----	-------

Lee Rodgers interview with <i>Consumers Guide</i> editors - <i>Auto Runs on Air!</i>	pgs	45-46
--	-----	-------

Some of our current state (+ & -) almost a half century after publication of *The World Crisis, Atomic Suicide?, etc.*

<i>Health & Healing</i>	pg	47
-----------------------------------	----	----

<i>Earth Changes</i>	pg	47
----------------------------	----	----

<i>Government/Politics</i>	pg	47
----------------------------------	----	----

<i>Religion</i>	pg	47
-----------------------	----	----

<i>Art</i>	pg	48
------------------	----	----

<i>Science & Technology</i>	pg	48
---------------------------------------	----	----

<i>Business & Commerce</i>	pg	48
--------------------------------------	----	----

<i>Agriculture</i>	pg	48
--------------------------	----	----

<i>Education</i>	pg	48
------------------------	----	----

<i>Miscellaneous</i>	pg	48
----------------------------	----	----

<i>Newsletters/Periodicals</i>	pg	49
--------------------------------------	----	----

Dialogue: Questions

Question One

This question has three parts to it. First how does the Russell's work consider health and disease? Second, how could the Russell Cosmogony address the origins of cancer (the epidemic of our times) and its possible eradication? Third, do the Russell concepts support alternative methods of healing and what is known as modern medicine at the same time, parts of both, one or the other or neither?

Question Two

Lloyd Zirbes gives an equation $G = m(v \text{ squared})$ that he says expresses the grand unification theory. Does it, and if so can we extend it so that this equation expresses what science calls light, EM waves, sound waves and heat waves so that we can mathematically express that say sound is heat is light is EM phenomena is gravity? In other words is there an extended form of this equation that expresses all of these phenomena as equivalent? Is there a geometrical expression for this?

Question Three

Is there an equation that we can create that expresses the equivalency of all of the 18 dimensions of matter that Walter Russell gave us? If so what is it? Is there a geometrical expression for this?

Question Four

Millenium Twain's letter claims that there is no need for an equivalency principle between gravity and inertia, that there is no gravity, only inertia. His ideas to me appear to be equivalent to Russells' except he wishes to discard gravity. Can this be done and if so why? And secondly, is everything in the cosmos made from laterally balanced electric fields and longitudinally balanced magnetic fields? What would Russell say about this and is there a way to "prove" it.

Some of the featured articles for next issue

A system of Geometry suitable for an oral tradition? By Andrew P. Nicolas of the U.K.
Scalar magnetic cooling in plants and vortex generators of water. By Robert S. Cafarelli

Dialogue: Responses to Previous Questions

Question One

Can the observed difference in drop times between energized or magnetized weights versus their nonenergized/nonmagnetized counterparts be explained by the Russell Cosmogony?

Question Two

Is there some design suggested by these observations and our possible insight from the Russell Cosmogony for application towards technology in any way, ie: transportation devices, improving any existing technology that utilizes falling weights etc.?

Question Three

As Josef Hasslberger questions, is the observed effect a consequence of motion or is it connected with acceleration?

Larry Tiegs is the only individual to attempt to answer these questions. His answers follow my comments and I will attempt to provide some answers while elaborating on Larry's response.

I agree with Larry that all phenomena can be explained in terms of the Russell Cosmogony and also don't know if I can explain it but will attempt it as well.

I think Larry's answer is correct except that the curved pressure zones that the magnetic and electric fields produce around the weights produce their drag effect mostly on the surrounding "gravity/ether" field to slow the fall rather than on the air, even though they must produce some slight drag on the air as well. The air drag I believe is insignificant while the gravity/ether drag is significantly causing what has been observed.

In Russell's thinking gravity is the effect of motion or the motion of the ether flow towards the center of a system as the push (what is normally named pull) of gravity and it is also the effect of the motion of the ether (basic substance or only thing there is) away from the center of a system. Both of these directions of motion Russell calls Gravity and they are also both stated to be electrical; and he uses the word push for both inward compressive and outward expansive directions and never wants to call the vacuum that always occurs with any push or compression a pull. In other words what science calls electric flow towards the center and magnetic flow away from the center Russell calls both electric and both as Gravity and describes both directions of motion as a push.

It appears to me that any motion is either accelerating or decelerating, and inertial mass and gravitational mass are the same thing.

Larry's suggestion that the energized/magnetized masses be weighed on a pin point scales I think is good and should be tried. If the weight differs then it may be possible to pump up the mass in such a way that it will interact with the planets' Gravity to rise rather than fall. This might be done like a surf board riding a gravity wave.

There are some additional observations that I will add to this discussion in the form of comments on an old *Popular Science* article that Toby Grotz gave me and two papers given me by Lloyd Zirbes some years ago that I feel pertain to the drop tests. Zirbes' papers are published as featured articles. Lloyd refolded a few years ago after spending his life energy attempting to bring in the new non-polluting technologies so necessary at this time to save our planet.

Popular Science June 1944 had an article titled *Magic with Magnetism* describing the work of Prof. Felix Ehrenhaft the former director of the Physical Institute at the University of Vienna who was then carrying on his work at the Zeiss optical company in New York City.

Prof. Ehrenhaft's work revealed that when two iron pole pieces were in acidulated water that they produced hydrogen gas through normally understood chemical reactions but when the iron poles were magnetized they produced oxygen as well and more of it at the north pole of the magnet than at

the south pole. Science then and maybe still now does not recognize how this can happen. His explanation was that the magnetic lines of force were a current just as electricity is a current and they separated the oxygen and hydrogen as electricity does it. He more or less made an equivalency of EM.

Professor Ehrenhaft's thinking is in agreement with and proves Russell's ideas in that both magnetic and electric fields to Russell are motion and both he called electric effects. The permanent magnets used in the experiments were found to lose magnetism much to the dismay of the manufacturers. Ehrenhaft decided this was because they were doing the work like electricity does of separating the water into its constituent parts: oxygen and hydrogen.

When the magnetic current is switched on the hydrogen bubbles that were rising from both pole pieces under ordinary chemical reaction change behavior, some stop in their tracks and reverse direction going to the other pole and even downward. If copper particles are added to the water they rotate in the same plane as the hydrogen bubbles but in the opposite direction and if the magnetic current is switched then the particles all switch directions too.

Also, if iron particles are in the air gap between the poles and in an homogenous field they will always go to either the north or south pole and they will switch directions if the field is switched, thus proving that the magnetized particles have an excess or deficiency of north or south charge. He calls these particles magnetic ions. This is a demonstration of Russells' contention that there are no single charged particles, and that every magnet as well as every mass has some degree of dual charge or has polarity. In other words the iron particles were not just north or south polarity but a predominance of one or the other and thus were compelled to go to the appropriate pole.

Prof. Ehrenhaft believed that a magnetic current had a rotating electric charge which was demonstrated in the copper particles rotating opposite to the hydrogen bubbles, just as an electric current has a rotating magnetic charge.

In essence Ehrenhaft demonstrated Russell's contention that all particles are dual charged and that magnetic fields are accompanied by electric fields and vice versa. Russell simply called both electric and further said they both were Gravity effects.

Lloyd Zirbes' articles bring other observations to Don Kelly's gravity drop tests that should make us question further the whole question of gravity and Galileo's law about the equivalent speed of falling objects.

Zirbes tests reveal that different masses fall with different rates of speed even if they are not magnetically or electrically charged. How can this be? Zirbes has an explanation in his article. Is it enough of an explanation?

By Russell's Cosmogony all elements are magnetically and electrically charged. When we add an electric charge to or magnetize a mass we are "pumping up" the atoms in the mass that are already charged to a now higher rate, but all masses are already charged electrically and magnetically.

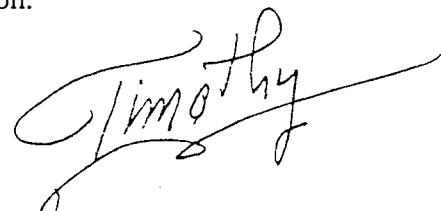
So, by Larry Tiegs explanation we can see how differing masses will have differing "electric/magnetic wings" that will interact with the electric/magnetic vortex wings of this planet and thus differing drop times. And, further, as Don Kelly's tests have shown, if we pump up these masses with additional electric/magnetic fields we will increase the strength of the wings that exist around every mass and influence the drop time.

The interaction between the electric/magnetic (Gravity) wings of the mass and the electric/magnetic (Gravity) wings of the planet are what cause the significant difference in drop times and there is some likely insignificant difference in the interaction of these wings with the surrounding air as well.

I believe the definitive answer to question three is that the observed effect is a consequence of motion in an accelerating mode rather than a decelerating mode. It has to be one or the other mode as any motion is one or the other.

I encourage Don Kelly to investigate the drop times of different elements such as carbon and iron, as lloyd Zirbes has demonstrated them to be different. This puts another twist to the investigation.

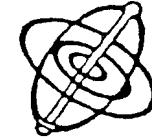
Dr. T.A. Binder, editor



and current and if anomalous amounts of iron are formed at optimum conditions.

1. R. Sundaresan and J.O'M. Bockris. " Anomalous Reactions During Arcing between Carbon Rods in Water", *Fusion Technology*, Vol. 26, Nov. 1994.
2. M. Singh, M.D. Saksena, V.S. Dixit, and V.B. Kartha "Verification of the George Oshawa Experiment For Anomalous Production Of Iron In Water", *Fusion Technology* Vol. 26, Nov 1994.
3. F. Pulver, in Biological Transformations New Alchemy by Louis Kevran and George Oshawa, George Oshawa Macrobiotic Foundation, 1971, pp. 48,49.
4. M. Kushi and G. Oshawa, Kushi Institute Study Guide Vol. 10, 1980 .
5. M. Kushi and G. Oshawa, Kushi Institute Study Guide Vol. 10, 1980 .
6. M. Kushi, The Book Of Macrobiotics. p. 140, Japan Publications, Inc., Tokyo. 1977 ISBN 0-87040-381-8.
7. Louis Kevran and George Oshawa, Biological Transformations New Alchemy, George Oshawa Macrobiotic Foundation, 1971, p. 47.
8. Louis Kevran and George Oshawa, Biological Transformations New Alchemy, George Oshawa Macrobiotic Foundation, 1971, p. 48.
9. C. Akbar, Kushi Institute. private communication.
10. M. Kushi and Edward Esko. The Philosophers Stone, Michio Kushi's Guide To Alchemy, Transmutation, And The New Science, One Peaceful World Press. Becket, MA 1994

ZIRBES ENTERPRISES



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March 3, 1987

Mr. Carrick Talmadge
Physics Dept.
Purdue Univ.
W. Lafayette, Ind.

Dear Mr. Talmadge,

I have become aware that you've taken an interest in searching for a repulsive force in nature which "counteracts" gravity, and I am writing to offer a suggestion as to how you can gain immediate proof that such a force does indeed exist. Since you are in effect at square one in your search, I will recommend you begin with a simple and straightforward test first conducted by myself and an associate in the early 1960s which I guarantee yields a dramatic result and offers irrefutable proof that Galileo's work was incomplete at best.

For this particular test I suggest using a ten pound sphere of carbon and a ten pound sphere of iron. The circumference of the carbon sphere will of course be greater than that of the iron, but this factor is very important to the result of the test, as you will soon see. You will also need to construct a drop box large enough to accommodate the two spheres and to incorporate some sort of a triggering mechanism which will ensure the spheres are released simultaneously. To acquire the absolute proof you are looking for, the distance of the drop should be at least 2,000 feet. We used an open mine shaft in Northern Minnesota, and that site worked out very well. After taking into account air flows, lunar winds, etc., make your drop. In our tests we had set up a high speed camera near the impact plane to record the results, but if you have an extra person at hand to make a visual observation the camera wouldn't be absolutely necessary - the result is so pronounced that it cannot be missed.

You will find that even after all possible interfering factors are accounted for, the carbon sphere will impact after a 2,000 foot fall long before the iron sphere strikes the impact plane. We found this particular test to be of great value because it eliminated the possibility that air resistance was the major factor in discrepancies we'd found between rates of acceleration of different elements in some of the other

tests we had conducted. Our result showed that the iron sphere was still six feet from the impact plane at the instant the carbon sphere impacted, proving that different elements falling in a gravitational field accelerated at different rates. The striking, unmistakable result yielded by this test qualifies it as an excellent starting point, and I recommend it highly for the reason that it quickly establishes a solid working foundation from which to proceed.

I realize that you may not have the facilities at hand to allow you to easily arrange to run this test, and so as you will notice I have sent an identical letter to some of your fellow researchers who are also now looking for the repulsive force. It is my great hope that if it is beyond your present means to run this simple test, then perhaps it will be within someone else's means.

After more than twenty-five years of talking about a repulsive force, it is gratifying for me to see persons such as yourself exploring this avenue of research, and I congratulate you. Should you continue this quest into the actions of and reasons for the repulsive force, it will ultimately lead you to unity of all things, and many new technologies vital to the survival of this planet in her time of crisis. If I can be of [redacted] assistance to you in suggesting further tests, sharing the results to the numerous tests I've conducted, or in answering any questions you may have, I will be happy to oblige.

cc: R. Newman : U of CA
J. Faller : Bouler, CO
P. Boynton : U of WA
E. Adelberger : U of WA
P. Thieberger : Brookhaven
V. Fitch : Princeton Univ.
D. Sudarsky : Purdue Univ.
A. Szafer: Purdue Univ.
S. Aronson : Brookhaven
E. Fishchbach : U of WA
G. Bock : U of IL
H. Cheng : Purdue Univ.

Sincerely,
Lloyd B. Zirbes
Director-Project Stardust

Gravity studies suggest a sixth force of nature

Associated Press

SAN FRANCISCO — Sensitive measurements of gravity made on and near a 2,000-foot TV tower suggest the existence of a new fundamental force that adds a tiny boost to gravity's attraction, scientists said Friday.

The finding "is very exciting because it indicates the force we call gravity is much more complicated than we thought," said Paul Boynton, a physicist and astronomer at the University of Washington in Seattle.

The four fundamental forces of nature are gravity; electromagnetism; the strong force, which holds the centers of atoms together; and the weak force, which makes some atoms break down in radioactive decay.

Studies by Boynton and others previously found evidence for a fifth force, which slightly counters gravity's pull over 10- to 1,000-yard distances.

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OLD WORLD MATH

It is common knowledge that Mr. Einstein spent much of his life attempting to mathematically formulate unity of all things, and that he failed in this noble effort. There are various reasons for this failure, and lack of full knowledge of the actions of free falling bodies was the primary reason. He lacked accurate data - he lacked facts - he was doomed to fail.

There is now such heavy reliance on the erroneous equation $E = mc^2$ by militarists in industry, politics, and science that questioning Einstein's very famous equation is viewed as an attack on their demi-god, and any "offender" is immediately attacked by those whose power and influence depends upon your continued trust in the promise of $E = mc^2$. In reality, this promise is a lie, and anyone who has examined this equation knows it's in error. This presents an obvious question : if it is in error, then why do they cling to it? In our view it is like a root from which has grown a plant called science, technology, and nuclear

These newspaper articles included to show different responses to Lloyd's letter to Boynton and Faller

Galileo revisited

"We simply did what Galileo would have done if he'd had our technology," says James E. Faller of the National Bureau of Standards. Working with physicists at the Joint Institute for Laboratory Astrophysics at the University of Colorado at Boulder, he repeated, at much higher precision, Galileo's notorious (because probably apocryphal) Tower of Pisa experiment

in which different objects of different mass were observed to strike the ground simultaneously when dropped from the same height.

The team used special vacuum chambers, a stabilized laser, optical interferometry, and copper and uranium masses to test whether different masses do indeed undergo the same acceleration due to gravity. The experiment confirmed this theory "with exquisite accuracy"—better than five parts in ten to the tenth power.

Popular Science

Dec. 87 p. 12

energy. This plant in turn feeds a beast known as the military/industrial complex. Were anyone to unearth this evil root called $E = mc^2$, the plant would wither and the beast would starve. This is why no one dares question, and why the truth has remained hidden. To laymen we say - a lie quickly becomes complex, but the truth is clear and simple. WE will now examine this jealously guarded root in the light of truth, and let the reader decide where logic lies.

Einstein used ergs as his value for energy. An erg is a value taken from the centimeter-gram-second system of measurements. Please take note of the term gram, which indicates weight. An erg is defined as : a unit of energy or work equal to the work done by a force of one dyne acting over a distance of one centimeter. From the start we can clearly see the "slippery" terminology applied as an aid to confusing the issue (and safeguarding the root). Work, energy, and force are all equated. We ask, are they indeed all equal? It would appear they are if "science" needs them to be, but is this the truth? Let us continue working our way through this maze and see where it leads.

One erg is a very small unit, so present day physicists use joules to place a value of E (energy). One joule was declared to equal ten million ergs, but the question then was, is a joule potential energy (voltage) or is it work done (ampere flow)? The congress decided the question by

declaring one joule to equal one watt of power. We now find that one watt is equivalent to an electrical flow of one ampere, and one ampere is the same as one coulomb. A coulomb is, by definition, the passing of one ampere of current across a given point in one second, and placed in concrete figures, a coulomb is a movement of 6.28×10^{18} electrons. A single electron has an atomic mass unit value of 9.1095×10^{-31} kilograms. 9.1095×10^{-31} kilograms times 6.28×10^{18} electrons equals 5.708×10^{-12} kilograms. Science hopes you are completely confused by this time, but if we reduce this maze to a simple list, perhaps we will see more clearly.

$$\begin{aligned}10 \text{ million ergs} &= 1 \text{ joule} \\1 \text{ joule} &= 1 \text{ watt} \\1 \text{ watt} &\stackrel{?}{=} 1 \text{ ampere} \\1 \text{ ampere} &= 1 \text{ coulomb} \\1 \text{ coulomb} &= 6.28 \times 10^{18} \text{ electrons / sec.} \\6.28 \times 10^{18} \text{ electrons} &= 5.708 \times 10^{-12} \text{ KILOGRAMS}\end{aligned}$$

What was Einstein referring to when he spoke of energy? Weight? To have weight there must be mass, and so Einstein's "E" is really mass, is it not?

A quick glance at Einstein's m (mass) is all that's required to reveal the basic error. Once again we are dealing with kilograms as the unit of measurement. On the equator at the surface of earth, one gram of mass weighs one gram. That very same gram of mass in deep space will have a weight value of zero, while on the surface of Jupiter this gram of mass weighs 2.5 grams. In applying these values, we find that nuclear technology should not be functional in open space - yet it is. WE also find that on the surface of the planet Jupiter, a nuclear warhead should yield a 250% greater reaction - yet it won't. Clearly, reliance of the weight of m (mass) leads to gross errors in calculations, and errors in calculating lead to errors in judgement.

We are told that in $E = mc^2$. Einstein sought to express the equivalence of energy and mass, and Mr. Einstein was as

correct as limited facts would allow him to be. Energy and mass are equivalent, for "energy" IS mass. It is then explained that c^2 comes into play only because of the "traditional" manner in which physicists calculate energy and mass. c^2 is, in fact, a value more or less pulled out of thin air, with nothing to support it other than faulty calculations. Physicists know that it is equally correct to calculate on the basis of $E = m$, and to adjust the units of measurement to suit the situation. That this fact is avoided in favor of the astronomical figure represented by c^2 (i.e., 8.9874^{16} meters per second) should alert us to the fraud involved.

Even though the most vigorous nuclear reaction yield at most 1% of the promised energy, science holds onto the "carrot" of c^2 as the promise of the future. In truth, if one were to be really precise, this mere 1% could be dissected into the various "quasi" concepts currently lumped under the heading "energy", and the lie would become even more apparent. Science has not only broken their promise - they have broken faith with the people.

In summation we should briefly address a question often put to us: if these technologies (electron/nuclear based) are wrong, then why do they function? The answer lies in the work of Maxwell, Faraday, and the other classical, true scientists, who performed hands-on experimentation to determine what worked. Modern theoretical scientists took this work and attempted to build a theory which would explain why things worked. When the militarists found a theory which worked to their advantage, progress in this area was halted, and it remains stagnant to this day. Data which does not fit the theory is simply ignored, and dissident researchers silenced. Those who attack our findings due to ignorance or fear of losing their power and influence must be reminded that Mr. Einstein, the guru of the atomic age, died trying to formulate unity. If he's been satisfied with his original theory, then what was he looking for?

NEW WORLD MATH

The equation which clearly and simply expresses the grand unification theory is $G = mv^2$, where G = gravity, m = mass, and v = velocity. In this short essay we will attempt to offer a brief explanation of this equation in hopes that our readers will then apply it to given specific situations. You will quickly see its validity.

In all of nature there exists but two forces: gravity and motion (velocity). Gravity is the force that causes

motion, and motion in turn creates gravity. These two forces of nature are inextricably intertwined, yet they are also separate and distinct. Velocity pulls everything apart, causing expansion, while gravity pulls everything together, causing densification. Our universe is expanding, therefore, our universe is in the mode of acceleration. We say again - mass expands at the rate of velocity squared.

To form a mind picture of gravity we could visualize an empty bubble - a bubble which is an absolute vacuum. The size of that bubble is determined by two basic factors, namely, the size of the mass which produced it and the velocity of the bubble. Gravity, like mass, has a force value that increases or decreases at the rate of the distance squared, and there are also many other integral functions which we will not flirt with here. As has been stated before, gravity is of two parts. The Project Stardust team simply refers to these two parts as gravity A (attractive force) and gravity B (repulsive force).

Gravity can be and is continuously being created. All falling bodies, from the smallest sub-atomic systems to the largest universal structures produce a repulsive force (see Theory of Falling Bodies I and II). The repulsive force (gravity B) is produced by particles of mass in the mode of direction change. The size of the bubble of gravity produced is directly proportional to the size of the particle and / or system that produces it. Two of the integral functions to consider are the velocity of the mass and the angle of directional change.

To understand gravity A, the attractive force, we must understand that mass expands at the rate of velocity squared. For mass to accomplish expansion it must accept "space". That space is gravity, and therefore, as velocity forces mass to expand, gravity moves in to provide the needed space. This inward movement of gravity tends to push the mass back together, and this action is seen as an attraction.

Placing mass into a universal equation is quite elementary, requiring only the elimination of the weight factor. Weight is nothing more than the inward push of gravity or the outward push of inertia. Because the weight value of a given quantity of mass varies from location to location (see essay Old World Math), it is a very arbitrary value. Indeed, weight is a factor only if you yourself are carrying it. To assign a consistent, workable value to a given volume of mass one must therefore concentrate on the density of that mass. Should weight ever be a consideration it must be seen in terms of gravity or inertia acting upon the mass. Mass itself must be considered in terms of the density of any given volume of mass in inversely proportional to the velocity of the mass, i.e., with an increase of velocity the mass density value will decrease.

In this short writing we will not attempt to explore in any detail the correlation between temperature and the

velocity of mass, but will instead simply state our findings. Mass in the mode of acceleration "absorbs" heat. This absorption results in the creation of a cooled area. Mass in the mode of deceleration releases heat. This release results in the creation of a warmed area. This heat is gravity, and so temperature can also be understood through the application of the unity equation. Though this is not a vital point in this paper, it certainly bears a mention.

We have briefly examined gravity and mass and have determined that gravity equals mass at the rate of velocity squared. Now we must quickly explore the velocity factor, and hopefully all will then become clear.

To visualize velocity we can picture in our mind an unending spiral staircase. The landing of this stairway represents zero velocity. At zero velocity complete densification of mass has occurred - there no longer exists any elements, for elements require space. Space is gravity, and gravity requires motion. At zero velocity there is no gravity, without which our entire solar system would fit into a quart jar - with room to spare. This quart jar would possess a weight value of zero, for weight depends upon gravity and inertia, which in turn rely on motion. Each step of the stairway will now represent an increase in velocity of one meter per second. Each increase in velocity will have a given effect on the mass involved, and as the analogy of the stairway implies, the effect is constant. Throughout any universe the effect of a given velocity on a given quantity of mass will always be constant. This constancy is the essence of a truly universal equation.

All things in nature are progressive or regressive at the rate squared, and therefore, the amount of space (gravity) contained in a particle or system or particles is directly proportional to the rate of velocity squared. The same can be said of distance, i.e., all forces decrease or increase their value at the rate of distance squared. As you consider what has been said it is our sincere hope that you understand the implication of the simple statement: mass expands at the rate of velocity squared. From this we deduce that as mass expands, space (gravity) is required, and that the amount of required space depends directly upon that velocity. Stated most simply: $G = mv^2$

Zirbes Enterprises, Project Stardust Team, July 1988

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