# A Discussion on the True Nature of Gravity and Inertia

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Newton's Law of Gravity only describes its behavior, not how or why it works as it does. When questioned on how his attractive gravity worked, Newton replied that he did not deal in conjecture. Einstein said there was no force of gravity or lines of force, only paths or geodesics in space, caused by the presence of mass. Although he tried for years to link his geodesic gravity with the other particlized forces of Nature, Einstein died without achieving his Unified Theory. Today's science agrees that massless gravitons are the carrier particle of the gravity force but still does not know why gravity works as it does or how it is made. The search for a quantumized gravity is still the Holy Grail of science. String or 'brane theory is now being touted as the answer of how gravity works, using several more dimensions, but, as Stephen Hawking says, it is not science because it does not make predictions, nor is it testable. Inertia has a connection with gravity, but it is not known what this connection is. Newton thought it a fixed attribute of any mass; Einstein thought the equality of gravitational and inertial mass was an 'amazing coincidence,' a fortuitous accident of Nature. There is a new hypothesis of gravity that gravity is a self-movement of atoms caused by the exchange of gravitons between any two bodies or atoms to set up the conditions for the atoms to move themselves. This new hypothesis builds on Newton's Law and Standard Theory and continues on to further explain how inertia is made and how it works, using graviton exchange and graviton recoils as the linking motive force for both gravity and inertia. This new hypothesis gives two quantitative predictions that can be experimentally tested. The experiment uses a modified Cavendish Gravitational Constant experiment on earth or in space, to doubly-conclusively prove or disprove the predictions and thus the new hypothesis. If the detailed test is successful and proves the predictions, the hypothesis is proven, and the existence and operation of gravitons are also proven. Should the test fail to prove the predictions, the hypothesis is falsified. Hence the experiment is doubly conclusive. It is a firm and unbreakable mantra of science that any new hypothesis must give quantitative predictions that can be experimentally tested. Any hypothesis that does this and still adheres to all previously known and proven phenomena, is a mature theory.

#### 1. Introduction

Imagine two men with fire hoses standing back to back on a skateboard with the hoses pointing in opposite directions. Now they open both hoses and the water shoots out with in-credible force in opposite directions. Both men must hold the hoses tightly against the recoil of the water. The skateboard doesn't move because the recoil forces balance each other out. Now one man shuts his hose off. The skateboard will now move in his direction because the recoil of the water from the opposite side (the other man) is unbalanced.

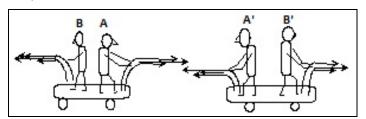


Fig 1. Skateboarders with water hoses.

Now let's go a second step. Let's have two skateboards with four men, two on each skateboard as before. The two men nearest each other and facing each other, we'll call A and A' and the two men facing away from each other we'll call B and B' (Fig. 1).

Now if A and A' train their hoses on one another, one or both of them will be knocked off their skateboards and the fire hoses will automatically cut off. When this happens the re-coil forces from the water hoses of B and B' will push the two skateboards together. Now if we call the skateboards, atoms, and the water, gravitons, we can see that graviton (or water) interchange between the two atoms sets up the condition where the two atoms will self-move together due to unbalanced graviton (water) recoils from the far sides (the B men) when one or both A men are incapacitated. This is how gravity works. It's that simple. As Faraday said, the great and overriding principle will be simple, and one. And now for the detailed example ...

## 2. The New Hypothesis of Gravity

All nuclear matter (including electrons) gives off massless particles of radiation for which I've adopted the name of gravitons. That gravitons are the hypothetical carrier particles for the gravitational force is already accepted by today's science [13].

I also quote Steven Hawking, one of the top theoretical physicists in the world. A passage from his book, **A Brief History of Time** [5], p. 70, explains:

"In the quantum mechanical way of looking at the gravitational field, the force between two matter particles is pictured as being carried by a particle of spin 2 called the graviton. This has no mass of its own so the force that it carries is long range. The gravitational force between the sun and the earth is ascribed to the exchange of gravitons between the particles that make up these two bodies. Although the exchanged particle are virtual, they certainly do produce a measurable effect -- they make the earth orbit the sun!"

What is not known, however, is how or why they cause the gravitational force.

My theory builds on this (the existence of gravitons), and makes only one, single, new assumption. And that is when a graviton from one nucleus impacts another nucleus, it blocks graviton emission at that point on the second nucleus's surface while its energy is being absorbed into the second nucleus. This single, new assumption is the "free invention of the human mind," that Einstein spoke of, and a new physical law. How does that give us gravity? Let's continue. First we'll see how gravity works, then we'll see another mechanical representation to allow a easier and greater understanding of the paradigm (Fig. 2).

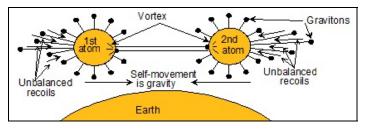


Fig 2. Illustrates how gravity is made.

Let's start with two basic hydrogen atoms with one proton (or nucleus), each with a surrounding atomic field (not shown) delineated by the electron's orbit (also not shown).

Gravitons emitted from nuclear matter (labeled as 1st and 2nd atom) must accelerate from zero speed at the surface of the nucleus, to light's speed c by the time they leave the atom's atomic field. This tremendous acceleration from zero to c in such a short distance ( $10^{-8}$  cm), and time ( $10^{-21}$  sec) causes a radiation recoil (Mössbauer Effect) of each graviton, to be felt by the atom (Will 1986), which is normally balanced out by the acceleration recoils of gravitons being emitted from the opposite sides of the same atom. An atom in free space, away from any other gravity fields, emitting gravitons in all directions, is therefore at rest with all its recoil forces balanced (just as the two men were balanced on the single skateboard).

The gravity force is caused by gravitons hitting nuclear matter, as in Fig. 1, which causes an imbalance in an atom's emitted graviton recoils on the far side of the nucleus.

Example: A graviton from the first atom hits the second atom's nucleus traveling at c (light) speed. The graviton hitting the second atom sets up a disruption of the second atom at the point of impact while the graviton's energy is being absorbed into the nucleus. The many gravitons that should have been emitted at that point are blocked, so the millions of recoils from the gravitons emitted from the opposite side of the second atom's nucleus are unbalanced. Therefore, the second atom feels a self-movement force in the direction of the first. When gravitons from the second atom hit the first, the same thing happens in

reverse and the first atom self-moves toward the second. This is Gravity. It is a self-movement of atoms.

Gravitons (not shown in the figure) from the earth, hit both atoms (with the greatest number hitting the atoms on their bottom sides nearest the earth's center), and the unbalanced graviton recoils from the atoms' top sides, self-move the atoms towards the earth with a force that we measure as weight.

To make a mechanical model of this is quite simple since we now know how gravity works (Fig. 3).

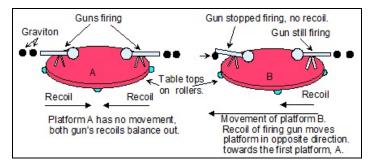


Fig 3. Mechanical model of gravitational self-movement.

Take two flat table-tops on rollers. On the tables we mount guns capable of continuously shooting out high-velocity bullets in all directions and every bullet (graviton) gives its associated platform (atom) a recoil when it is fired. Since we are not moving in three dimensions we will limit our shooting in a flat plane horizontal to the surface the tables are on and in just two directions. When a gun is hit by an arriving bullet (graviton) it will cease to fire until the impact of the bullet is dissipated, then the device will reset to fire again. If both guns of a platform are firing, their recoils balance each other out and the platform is still.

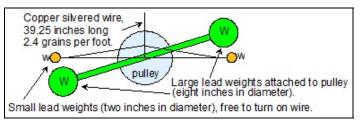


Fig 4. Gravitational balance.

We find, then, that when the two table tops (gravitational bodies) are firing at one an-other, their near sides will score hits on each another. Each table top will then have times when their own near-side guns will have stopped firing momentarily. At these times the re-coils from the continuous firing from their opposite (far) sides will not be counterbalanced by the recoils from the firing from their near sides because of the temporary cessation of firing and the table-tops (atoms) will then be seen to be self-moving towards one another. This is exactly how gravity works. All other forces in Nature are particle-based. Why should gravity be any different? In the example, the bullets represent the gravitons, the guns are the graviton emission agency and the tables represent the nuclei of the atoms. If you look at Fig. 2, you will see that the left gun of platform B has stopped firing due to being hit by platform A's right gun. The right gun of platform B is still firing and its recoils are not balanced by the left gun, so platform B self-moves to the left toward platform A. This is a

mechanical representation of how gravity works. What could be simpler?

So here we have a second, simple, mechanical model of gravity showing the self-movement results of graviton impact as per this new self-movement gravity theory. When the right gun of platform A is disabled, platform A will self-move towards B and vice versa. The two platforms will move together because of the exchange of bullets (gravitons) resulting in unbalanced recoils whenever a near-side gun is momentarily disabled. Simple yet elegant, without times or distances varying due to relative speeds, "branes", "multi-dimensions", or any other insults to Nature.

Any new theory must give quantitative predictions that can be experimentally tested. Let's prove then whether gravity is as Newton said, or as I say. We will use a modified Cavendish experiment with two pairs of balls on two beams (one pair per beam) each beam hanging from a torsion wire, and increase the mass ratios of the balls one set at a time.

The experiment will show how the self-movement theory of gravity differs from the nor-mal perception of gravity as a mutual attraction as per Newton's law. The mass/ratio experiment is a modified Cavendish experiment and will prove (or disprove) the theory that gravity is a self-movement once and for all, and also, if successful, prove the existence and operation of gravitons. Proving how gravity works and then inertia, will give us the possibility of Faster Than Light flight. And any country, however small, could do this experiment to prove the gravity theory and thus the possibility of FTL flight.

First, let's see how Cavendish measured the gravitational constant *G* (Fig. 4).

Cavendish, like Newton before him, considered gravity as a mutually-attractive force similar in operation to the action of two magnets attracting each other. He measured the gravitational constant G by suspending two small lead balls (w) connected by a bar hanging from a torsion wire, then rotated two larger lead balls on a platform near the small balls [11] and measured the deviation of the two small balls with ivory pointers and marked ivory scales. The larger spheres (W) were fixed on a rotating platform and not free to move, as a mutually-attractive force would not differ in generative force if one set were fixed or both were free to move. All subsequent experiments to prove G are done with one heavy set fixed. However, since my theory is that gravity is a self-movement force, the force generated by the two large spheres was not available to add to the total by virtue of their being fixed and effectively unable to move freely, and, therefore, was never measured by Cavendish and included in the calculations for the gravitational constant. This crucial difference between a self-movement force and a mutually-attractive force will conclusively prove or disprove the new gravitational theory beyond any doubt. It is a make or break experiment.

If we redo the Cavendish experiment with the large weights also freely movable on their own torsion wire, my first prediction is that we'll find a gravitational constant of double today's accepted figure ( $G \times 2$ ). The experiment can be done here on earth or in space. The space-based experiment can be done inexpensively and simply by having two spheres with a piezoelectric crystal between which gives an electrical EMF when compressed

by the spheres, when they gravitationally self-move together. The EMF will be used to modulate a radio.

My second prediction is that Newton's law becomes  $F = 2 M_1 M_2 / d^2$ . Let's set the stage to show how the spheres in Fig. 4 will give Newton's law.

Fig. 5 shows two balls of identical mass with one fixed and not free to move, as all gravitational constant experiments are basically done [8]. (For simplicity, one ball represents the pair of balls hanging on a torsion wire in a Cavendish-style experiment and the other represents the pair of fixed balls.) The numbers in the masses and representing the force are ratios, so a force of one noted between the first set of balls has no numeric value other than as a reference value of an initial ratio of one, the same with the masses. So with a mass of one for each ball (A), we get an attractive force (using Newton's terminology) of one (1=1x1).

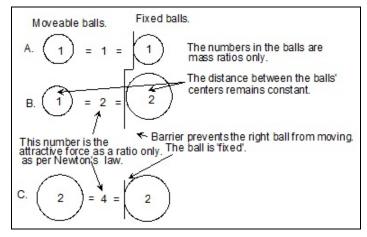


Fig 5. Demonstration of Newton's Inverse Square Law.

Now let's increase the mass of the right ball, which is fixed and not free to move, to double its original mass for a value of two (B). What will be the measured force of 'attraction' between the two balls, expressed as a ratio as compared to the first force figure of one?

According to Newton's law of gravitation,  $F = m_1 m_2 / d^2$  (neglecting  $d^2$  as this is also true in my theory), the attractive force is directly proportional to the product of the two masses so the doubling of the mass of either one of the balls will result in the doubling of the attractive force to a value of two (2=1x2). If we now double the mass of the left ball also, so we have two balls (C), both with masses of 2, the total attractive force figure will double again to 4 (4=2x2). Newton's law being true will give the same forces if both balls are free to move.

Now let's see what happens if the gravity force is a self-movement with both balls free to move, see Fig. 5. If Newton is correct the forces will still be as in Fig. 4.

We start with the two masses equal again to one, with a combined force of one between them (example a). We are not interested in what the force actually is, it is only a starting point as a reference for the forces to be developed as the mass ratios are changed.

Let's double the mass of the ball on the right for a mass of two (example b) per atom (resulting in twice the number of unbalanced gravitons), to cause the self-movement force of the left ball to double. We now, for the moment, have a interim force of two.

However the gravitons from the unchanged ball on the left are still being stopped by the atoms of the doubled mass of the right ball. So with twice the atoms to stop twice as many gravitons (per atom the number of gravitons stopped are the same), the self-movement force developed for the right ball is also doubled. So we now have a total force of (4) four when we finish our calculations (the right ball can move so its self-generated force is included).

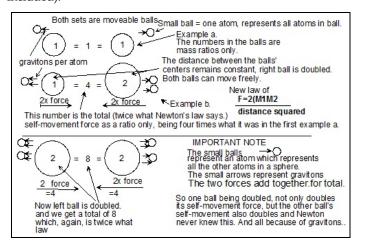


Fig 6. Proof that gravity is a self-movement.

Now if we double the mass of the left ball to 2, leaving the right ball at 2, as in Fig. 5 (example c), we'll find that the left ball (call it the sender) will now emit double the numbers of gravitons to the right (receiver) which will cause the right to again double its self-movement force for an intermediate force value of four for that ball because each of its atoms is receiving double the numbers of gravitons it did before the left ball doubled in mass. The left ball being doubled in mass has twice the number of atoms and they will stop twice the number of gravitons being emitted by the ball on the right. (Per-atom for the ball on the left, the number of gravitons remains the same but the numbers of atoms doubled.) This will also double the left ball's self-movement force (to four) for a total force between the two balls of 8. In our new formula,  $F = 2 M_1 M_2 / d^2$  shows that 2 times 2 for the masses equals 4, times 2 equals 8.

We can see then that if gravity is a self-movement, this simple, proposed test of a modified Cavendish experiment with two sets of balls swinging freely on torsion wires and changing the mass ratios of the balls one pair at a time, will show that the gravitational force between two bodies will vary as two times their mass product, and not just as proportional to the mass product as Newton's law must have it.

Newton's law then would be changed to be  $F = 2M_1M_2/d^2$ , rather than  $F = M_1M_2/d^2$  and the existence and operation of gravitons as real particles, not virtual, will also be proven.

This modification of Newton's law is a pretty drastic prediction and if it is proven true by this simple experiment, it will prove gravity to be a self-movement and revolutionize gravitational physics. *G*, the gravitational constant, will also have to double.

Remember a point here. In the self-movement theory of gravity, doubling the mass of one ball (the sender) will result in the

doubling of the self-movement force in both balls. One, (the receiver) because it receives double the gravitons per atom, and the other (the sender) because it has doubled its atoms with the same amount of gravitons per atom from the receiver. (Different causes, same effect.) Both of these forces add to the total.

In a mutual attraction such as Newton's gravity, doubling one ball's mass only doubles the total attractive force (like doubling a rubber band between the two). (In a self-movement gravity, there are no rubber bands between two bodies, only a graviton exchange between them and doubling one results in the total gravitational force going to four.)

Gravity is unique amongst all other forces in the universe. Gravity (as a self-movement) comes from within an atom and it doesn't need an equal and opposite force to be developed by a mounting point in order for it to be developed or act, (like normal forces do). It doesn't need to push or pull against something exterior to itself, is what I mean. An atom accelerates in a gravity field by forces generated within the atom and the resistance to the acceleration (inertia) also comes from within the same atom.

So a self-movement force varies as twice the mass product. This would be a conclusive prediction based on the new graviton theory of quantumized gravity. It obvious that the gravitational constant, *G*, would also be doubled.

In space we can have two balls in a tube with a piezoelectric crystal between them, its output hooked to a calibrated radio transmitter. As the masses of the balls are changed, this varies pressure on the crystal so the voltage output to the radio varies its frequency output.

#### 3. Inertia

Inertia, which Newton thought was a "fixed" part of any mass, and which Einstein thought was an "amazing coincidence" that it equaled the gravity force, is a pile-up of graviton recoils in the direction of the change-of-movement of a mass due to the change-in-motion rate being additive to the gravitons' normal acceleration to c in the atomic fields, which builds up until it exactly opposes the accelerative force (Einstein's 'amazing' coincidence) thereby stopping any further increase in acceleration rate (Fig. 6).

Inertia is not, then, a fixed attribute of matter, but is a variable resistive force with a lagging response time of  $10^{-23}$  seconds. The lag time is due to the time it takes any accelerative force to be transmitted through the diameter of the atom's nucleus, using light's speed as the maximum possible transfer rate, so inertia is not instantaneous. If gravitons are eliminated there is no inertia. (This is the key to FTL propulsion.)

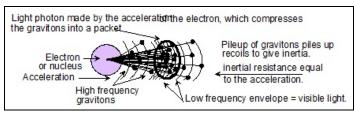


Fig 7. How inertia and light are mode.

When an atom (nucleus) is accelerated, or an electron is jumped (accelerated) from a high-energy level to a lower energy level, their emitted high-frequency gravitons undergo a compression, a blue-shift as it were, and, if the rate of acceleration is fast enough as in the case of an electron, they'll be compressed into a packet (photon) with a lower-frequency envelope that we see as visible light. See Fig. 6 again to see how light is made.

Using a mechanical model again for inertia, think of yourself standing upright in a high-powered car. You have a fairly heavy rock in your hand and as the car accelerates at a fast rate, you try to throw the rock in a forward direction. If the car is very fast, say like an alcohol-fueled dragster, you will find that the rock is extremely hard to throw because of the tremendous acceleration. Indeed, perhaps you cannot even stand up if the acceleration is fast enough. As the car accelerates, the increased inertia resistance causes the rock to feel heavier and harder to throw than if you were standing on the ground. That's because in addition to the inertial resistance felt when you normally throw the rock, now you have the car's additional acceleration of the rock to contend with which develops more inertia in the rock. The same with inertia on the atomic level. Gravitons are being emitted in all directions from the atoms of the rock. Now when you try to throw the rock, you must accelerate it and the gravitons in the line of your acceleration have their recoils piled up to resist the throw. This is inertia as in Fig. 6. The harder you throw, the greater the pileup, so inertia is a variable force dependent upon the acceleration, and it is a lagging function. It is not made instantaneously, but only due to an atom's movement after the fact with a lag time of about 10-23 seconds, which is the time it takes any accelerative force to cross an atom's nucleus to be felt on the other side of the atom on its leading edge when you try to move it. The gravitons are compressed due to the acceleration and their recoils are likewise "piled up." The higher the rate of acceleration, the more the recoils pile up and the more the inertial resistance to the acceleration. If it were not for the lag time, nothing could be moved. So inertia is not -- as it is now assumed to be -- instantaneous or fixed ... nor does it have to have other mass exist in the universe. Just as Newton showed in his rotating water bucket, inertia is an absolute, and it is variable.

### 4. Faster-Than-Light Drive

Now how does all this translate into a faster-than-light drive? We've seen how inertia is made. It's made by a pileup of gravitons and thereby, their re-coils, resisting any change in movement, in-line of the movement. It's then obvious that if atoms have their graviton emissions blocked by a suppressor field, inertia will be affected as a variable. If you eliminate inertia on one side of an atom, you will have the recoils on the other side acting at light speed and without inertia we will have a faster-than-light propulsion. This FTL will give us an almost infinite 'lift' for a spacecraft propulsion system which the military is trying so hard to find. This is the 'silver bullet.'

## 5. Light Photon

This lower-frequency packet of compressed gravitons as shown in the inertia diagram, may also be what we see as visible light, assuming the acceleration is fast enough. Dependent upon the rate of acceleration of an electron, proton, or neutron, we would obtain other radiations such as x-rays, infra-red, etc., all composed of high-frequency gravitons compressed into a lower-

frequency packet. (And as we said, this pile-up of gravitons and the increased recoils is also what causes inertia.) The greater the acceleration, the more gravitons are com-pressed into the packet, the higher energy contained within, and the higher frequency of the photon as it's being developed until, with the proper acceleration, the photon packet becomes visible light and induces a response in the rods and cones of our eyes.

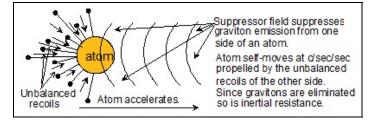


Fig 8. Suppressor field - graviton interaction

Light, then, is exactly the same phenomenon as the inertia you feel when you throw a rock, only made by a much higher rate of acceleration.

The resistance to the acceleration by the compressed gravitons' recoils is inertia, the compressed gravitons themselves are the photon of light.

This linking of light to gravitons, which are also responsible for the quantumized gravity force and inertia, would couple the basic physical forces into a simple and unified whole.

This new theory not only gives us a logical reason for gravity and how it works, it also explains and links together the how of inertia, inertial momentum, and light generation, with gravity (i.e., gravitons are the link between light and gravity and inertia), which are basic aspects of matter that have never before been explained or brought together by science.

It must be reasonable to assume that if any theory can explain several aspects of matter with one cause -- gravitons -- which are used in exactly the same way for all cases, it must be more correct than present-day theories that have to have several different causes to explain the same several different aspects.

Einstein, himself, stated that this should be true. He said that, "A theory is the more impressive the greater the simplicity of its premises is, the more different kinds of things it relates, and the more extended is its area of applicability."

It must be reiterated that gravitons have acted in exactly the same way in each of the several aspects explained. There has not been the slightest change in how gravitons have acted in any of the cases, only in how their actions have been utilized. There has been no need to incorporate any of the insults to Nature that other theories require, such as changing time itself due to relative movement or for that matter, changing distances in space or physical lengths of objects due to speed through space relative to earth. We need no transformation formulas to distinguish between different reference systems in relative movement to each other, nor do we have to limit velocities to c relative to earth, or have multi-dimensions other than our normal three plus time, or strings or 'branes,' or to have light invariant regardless of the source's or observer's movement.

In this new theory, relative movement in space is considered a shared movement between any two reference systems and whatever affects one, affects the other, equally. There is no preferred reference system such as earth, and artificial velocities in space may exceed light speeds relative to earth, light can travel FTL or slower dependent upon the medium, and any uniform speed in space is the same as at rest. Space is a medium, albeit a very rarified one.

This then is the basic explanation of the self-movement theory of gravity.

The experiment is a doubly conclusive experiment, i.e., if successful it will conclusively prove the predictions and hence the hypothesis, and if unsuccessful, it will conclusively disprove the theory. There are very few experiments in science that can make that claim.

#### 6. Frequently Asked Question

One of the most frequently stated comments is that the emitted graviton must give a repulsive recoil to the source atom, and then must also give a repulsive (momentum) recoil to the receiving atom when it hits, resulting in a total repulsive force, not an attractive force.

This is true. However the recoil to the first atom is balanced by normal graviton emission from the first atom's far side so it doesn't feel any net repulsive force; and when the graviton hits the second atom (during the time when its energy is being absorbed into the second atom), it disrupts millions of gravitons from being emitted at that point on the second atom, and so the millions of gravitons still being emitted from the second atom's far side have millions of recoils still being generated to self-move the second atom towards the first, overcoming the small momentum force given to the second atom by the single graviton in question. And of course, this happens vice versa. Remember, the total numbers of gravitons emitted by an atom is in the billions per second.

And so we get gravity as two self-movement forces in any two-body situation.

## 7. Comparison of the Two Theories

Newton's gravity is an 'attractive' gravity force, unique to its source. In other words, a body such as earth reaches out and its gravity 'grabs' another body and pulls it in. So if an apple falls, it's because earth's attraction for the apple caused the apple to fall. If the mass of earth should double, its attractive pull for the apple also doubles. The apple also has its own attractive gravity for the earth. However it's so very small as to be nonexistent. But, if the apple doubles in size, its attraction for earth (not to earth), also doubles, but again is so small as to be nonexistent.

If we start with Newton's formula  $F = m_1 m_2 / d^2$  as 1=1x1 (earth is  $m_1$  and the apple is  $m_2$ ), then double one of the masses, in this case earth  $(m_1)$ , its force of gravity doubles and we get 2=2x1. Now if the apple doubles as well, its attraction for earth also doubles so we get 4=2x2. Remember, earth's attractive gravity comes from within the earth and has no effect on the apple's attractive gravity. The apple's attractive gravity comes from within the apple, and has no effect on earth's gravity. The same with the moon. The earth's attractive gravity is solely because of earth's mass and has nothing to do with any force emanating from the moon and vice versa. Earth's gravity is earth's gravity and the moon's gravity is also solely because of the mass of the

moon. So Newton got his formula of  $F = m_1 m_2 / d^2$ . (The inverse square of the distance is the same in both theories and can therefore be ignored for the moment.)

Now look at the new gravity theory in a two-body situation. The mass of one body 'induces' or causes another body to develop a self-movement gravity force. The self-movement of the first body is determined by its mass and the mass of the second body. Likewise the self-movement developed by the second body is determined by its mass and the mass of the first body.

The new theory of self-movement gravity is a 'reactive' gravity. In other words, the self-movement force developed by any body is a reaction to the gravitons received from a second body. The amount of self-movement of either body is determined by the amount of mass of the two bodies combined (which is totally logical). Increase the mass of either body and the self-movement force of both bodies changes. (This Newton never thought of.)

So any body gives off a certain amount of gravitons dependent upon its mass, or number of atoms, in the body. These gravitons hit the atoms of a second body and due to the unbalanced recoils made in the second body (also a function of the mass of the second body), makes a self-movement of the second body. The amount of gravitons received per atom by any body from a second body (which makes the self-movement force), is again a function of the combination of the mass of the second body and the mass of the receiving body.

Therefore, the amount of self-movement of any body is determined by the mass of that body (numbers of gravitons received per atom) and the mass of the other body (numbers of gravitons sent), so we get  $F = 2m_1m_2/d^2$ , as in Fig. 6.

Newton, then, looked at gravity as a unique attribute of any mass. The attractive gravity generated by any mass in Newton's gravity was unaffected by the size or mass of any second body, which had its own, unique, attractive gravity. The idea that one mass could directly induce, or cause, or be part of the factors which determined the amount of a gravitational force to be generated by a second mass, was totally alien to his concept of an attractive gravity solely produced by any unique body. Newton's gravity is capable of being modified. Einstein's relativity makes the same predictions as Newton's but is not capable of modification. If the experiment proves gravity to be a self-movement, then Einstein's geodesic gravity is wrong.

This then is the simple proposal to conclusively prove how gravity actually is made and works, which will allow us to open the gates to the universe. FTL propulsion is a sine qua non for interstellar space travel. Redirection of the gravity force will give us that capability.

This new hypothesis, the two quantitative predictions and the experiment/s, are my intellectual property.

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