

## **Gravity: Newton's legacy still unfathomable**

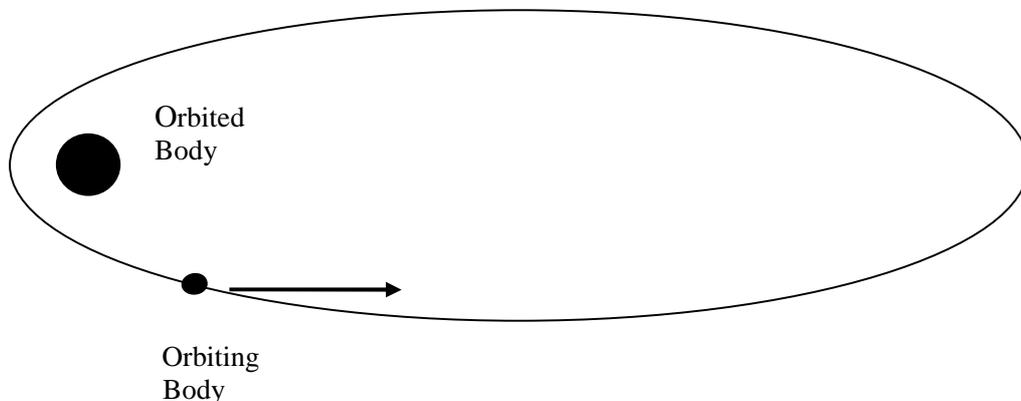
### **Elliptical orbit comets present gravity as inexplicable**

Gravity appears to be no more than an attraction between objects. Newton recognized it as an independent force which he so named, but did not explain its origin. Long thought to have the same velocity as lightwaves, gravity (theorised as “waves”) has now been found to travel immeasurably faster. But despite the investment of scholarship on the subject over 300 years, including that of Einstein's ‘General Relativity’ theory, no physical source has yet been identified as the generator of gravity. A clear example of gravity in incomprehensible action is seen in the wide elliptical orbit of Halley's comet which alone determines the practical physics of gravity to be absolutely inexplicable.

Although the orbits of such comets at first appear easily understandable, on closer inspection, they contradict a basic law of mass and energy relationships (the Inverse Square Law). Further, no explanation exists as to how such orbits remain in existence and keep their integrity for so long. Of all the physical forces measured, none are known which can, within the laws of probability, start and sustain the elliptical path which such ‘long period’ cosmic bodies often follow (the appearance of Halley's comet every 75 years for example, was reportedly first logged in China in 240 B.C.).

The common understanding of comets having distinctly elliptical orbits (as in the showcase example of Halley's) is that the gravity of the influencing body (in this case the Sun) causes the comet to whip around it and be flung outward into a path of dramatically decreasing gravity, where scholars teach that despite the comet continuing outward to some 70 times away (past Neptune), the Sun's almost negligible attraction has by then slowed it down, changed its direction around, and then started to pull it back, continuing the cycle. (Some mass is lost in each passing around the Sun, but the cycle is considered to continue until too little mass is left, or the direction is changed from a rare encounter.)

The figure below represents an orbit of a comet such as Halley's which has maintained its integrity for many centuries, there being comparatively rare, if any, encounters with other orbit-influencing bodies during its life, none in recent ages impacting its orbital integrity.



Object whips around Sun or planet and away in a gravity induced elliptical orbit.

## 2.

The common explanation for comet behaviour rests on observation and because no immediate objection is well known, the comet path being likened to how a rock may be expected to behave if swung around 'comet-like' at the end of a spring: The spring would stretch and slow the rock's velocity as it goes off into the distance, then the kinetic energy lost by the rock, and now stored in the extremely stretched spring, would pull the rock back, speeding it up as it whips around us, then off into an elliptical path again.

However, a critical flaw contradicts such explanation. That is, the ordinary gravitational force as postulated by Newton, although much appearing to act like a spring, operates oppositely, and by a mechanism unknown to the laws and arguments of modern science.

That is to say, contrary to the mechanics of a spring, Newton presented a formula by which the strength of the postulated gravity force at increasing distances could be calculated, where the well proven 'Inverse Distance-squared' term in his 'Law of Gravitation' formula means that when the distance between two bodies is doubled, the pull of gravity drops to a quarter of what it was, and when distance triples, the pull of gravity drops to one-ninth, etc.

Thus Newtonian or "classical" gravity does not increase in strength with distance like a stretching spring but rather, a twofold difference is revealed, such pull of gravity decreasing dramatically as distance increases. That is, a stretched spring is different in two ways, pulling back firstly with an increasing strength corresponding to increasing distance, and secondly, being not in accord with the Inverse Square ratio, but with a linear ratio: double the strength when stretched to double its length, triple when its length is tripled etc., such linearity of the pulling force being a second dissimilarity to gravity.

With the gravity of the orbited body becoming a decreasing force at a dramatic rate as the distance grows between the two bodies (in contrast to the increasing force needed to stretch out a spring), it is found that such dramatic rate of weakening will rapidly reach a near zero gravity pull. Also, the inertia of the high speed comet travelling almost tangentially outward in a rapidly decreasing gravity field would give it far more momentum (as with 'flung-off' bodies) than the weakening pull could counteract.

Therefore although appearing closely similar, gravity does not at all relate to a spring stretching but is more analogous to chewing gum which the farther it is stretched out, the thinner and weaker it becomes and hence less able to return to its original form. And also opposite to a spring, the 'chewing gum' stores no energy in any spring-like bonds which could later return the energy to the object/comet to keep it in orbit. Rather, the bonds of the 'chewing gum' deform and largely remain deformed, so there is only a negligible force of pulling back by such stretched out 'gum', which becomes overwhelmed by the force of the orbiting object's momentum.

Just like the example of stretched out chewing gum, the field of gravity pull reveals no means of storing energy for an object, and no other energy source has been detected which could increase the attraction of the orbiting object to where its inertia is overcome and its direction changed. And although Newton established the geometry of how gravity functions, the source of such attracting force remains unidentified.

### 3.

Concerning the theory that some of an object's kinetic motion may be converted into a pocket of latent "gravitational potential energy", no mechanism for such storage and conversion has been postulated which accords with the known laws of physics. And with no evidence of any gravitational 'storing', such cannot be taken as a reality.

That is, while an orbiting object is rapidly retreating from its orbited 'parent body', and the gravitational force to attract it back rapidly decreases, then the kinetic energy needed to slow it down and reverse the direction must be correspondingly greater than its energy of momentum even though the gravity of the parent body (in keeping with the Inverse Square Law) becomes negligible and accordingly, easily resistable. With no power source for the return energy being identified, scholars are compelled to theorise that this energy must come from the gravitational field itself, albeit indefinably, that is, on resorting to a theorised "stretched gravitational field".

But as only one gravitational field radiation is known in the observable universe, where such force is related to the distance between objects, that is, such as involves an ever-lessening gravity pull as the distance between objects increases, then with there being no force of radiation detected such as exerts an increasing gravity-like pull with the distance between objects having increased, the dilemma appears insurmountable.

Without involving the imagination, a common metal spring cannot be stretched out and at the same time have an ever-weakening retracting pull. Likewise, with the gravity pull on a receding object rapidly lessening (following the Inverse Square Law), then that force cannot be acting as a stretched out spring. That is, the object and its path would still retain most of their integrity after being flung off at a tangent, with negligible effect on momentum and direction, since the decreased gravity attracting the object/comet at sizable distances is insufficient to significantly change, let alone reverse, its path.

However, at some far distant point along the orbit, the force of gravity acting on the object/comet as it speeds away inexplicably gives the appearance of increasingly regaining its earlier strength of attraction to the parent body, with some internal and/or external increase of gravity being the only conceivable means of providing energy for a direction reversal and return journey. That an unknown force is needed to retain a closed elliptical orbit of a comet/object against a basic law of physics reveals an apparent unfathomability of gravity (a near-circular orbit having no such extremes of gravity).

That is, with no source of energy residing within the much weakened 'gravity spring' (as in the gum analogy), a notably raised attraction of the orbiting body toward the orbited body nevertheless seems to reappear despite its having become negligible in strength long before its furthest distance, to the extent where such "recharge" eventually results in a reversal of its direction, and an acceleration back along a specific orbit.

Although such behaviour is contradictory to the known workings of normal springs and elastic lengths, and appears incomprehensible in both classical and scientific terms, this same theorised spring theory is largely still employed to explain the nature of gravity and the existence of 'long period' elliptical orbits (the philosophy of gravity presented as part of Einstein's theory of Relativity does not allow for such complexity of gravity and thus does not, under either scientific or legal scrutiny represent the everyday reality supposed by most of the world's mathematicians and gravity scholars).

#### 4.

It thus remains that while the spring analogy of gravity appears to be a ready scientific-based explanation for a cosmic occurrence which would otherwise be inexplicable, since gravity appears to act both according to and contrary to the basic 'Inverse Square Law' of physics, and no alternative force has yet been detected, no current theory is reliable.

That is, not only is there no current explanation for the source of energy enabling the comet's 'return-to-home' process, but the laws of physics establish that energy cannot arise from a source which cannot be identified. Thus not only does a total lack of evidence exist for any relevant alternative energy, including none for the theoretical "dark energy" now popularly embraced (which has proven superfluous for at least the Milky Way galaxy), there is also no evidence of any identified source to investigate.

Although recognized in the elliptical orbits of bodies ranging to large distances and a long returning period, such inexplicable force accompanying gravity must exist wherever gravity exists, this same force necessarily pervading everything in the universe.

The explanation for elliptical orbits which is commonly promoted disregards the unknown remote 'return-to-home' attracting factor, with the truth of such disregarded property being hidden largely under a theorised storing of a plasma-type "gravitational potential energy", with such "energy" being assumed to accumulate in a receding object by an unknown process as it proceeds in orbit away from the attracting body. Then at a substantial distance, the kinetic energy supposedly accumulated is gradually released, causing the object to slow down, reverse direction and head toward the attracting body.

But again, despite the well known geometry of how gravity functions, no legally competent explanation exists as to how this supposed potential energy in the object arises, how it is stored, how it gains latent strength solely as a result of pulling away, and how such tangent-changing energy later 'takes charge' of the object.

The scientific dilemma surrounding gravity therefore relegates the current theories of its source and absolute nature to the area of philosophy or science-fiction. At the core of modern gravity theories is the Einsteinian concept of a space and time amalgamation which is derived via mathematics to represent the modern exotic concept of "space-time" as if that compound of such two disparate properties had been proven a physical reality\*. However despite the popular acceptance of "space-time" as the "preferred" physical makeup of the universe, no discoveries in either the microcosmic or macrocosmic spheres have provided any evidence for such a reality, nor is any expected, since the basis of Einsteinian gravity (albeit having substantial intellectual and academic following) relies on a previously developed theory that the velocity of gravity propagation was equal to that of light, such having since been disproved from experiments which force the conclusion that the Sun's gravity radiates extraordinarily faster than the velocity of light.

Therefore if there exists a sustainable answer to the question "What exactly is gravity?", it will not be extracted from within present human learning, nor, it appears, from anywhere within the imagination man has inherited.

### \* Einstein's Unreliable Theories of Relativity

Although most theoretical scientists hold both the Special and General Theories of Einstein's Relativity to be empirically based scientific fact, if such Theories were presented to, and closely examined by a common law governed court, a significantly different conclusion would be revealed, one where neither Theory could claim the status of practical physics. That is, notwithstanding isolated parts of such being of practical use (albeit not solely dependent on Relativity), when the same Theories are examined according to the rules of common law evidence and argument, a contrary appraisal is reached.

Without embracing the mathematics which support the Theories, a summary civil judgement on General Relativity appeared in a 1969 work of an hydraulic engineer and equipment manufacturer, H. Nordenson, from his position of former senior Nobel Physics Prize judge:

"With regard to the investigation I have here presented I maintain that whosoever from now upholds the relativistic ideas or applies the fundamental relativistic formulae as representing relations between physical quantities, without regarding and refuting my..criticism of the Theory, makes himself liable to the accusation of grave intellectual laxity.

"I do not hesitate to declare as a result of my investigation the opinion that Einstein's Theory of Relativity is not only among the most sensational fancies, but also one of the most serious logical incoherencies in the history of science." .... "I have often met persons..who have expressed their astonishment that Einstein was not awarded the Nobel Prize for his Theory of Relativity, which many people consider as one of the most outstanding achievements of this century.

"As a member of the Swedish Academy of Science which distributes the Nobel Prizes of physics I am on the other hand very glad that this was *not* done, since *the Theory of Relativity is not physics but philosophy and in my opinion poor philosophy* " (author emphases).

"Einstein was awarded the Prize for physics in the year 1921 for his merits in mathematical physics, especially for his discovery of (photoelectric behaviour).

"As far as I can judge this was an extremely well merited award, and even if my criticism (of Relativity)...be accepted and his contributions to science thereby be reduced in this field he will surely, all the same, stand out as one of the great scientists of our time."

(Relativity Time and Reality (1969), 214.)

*Although Nordenson's civil declaration is sharply hostile to Relativity, and largely repugnant to most current theorists' beliefs, if the writings of Einstein and supportive theoretical physicists were subjected to close examination in a strict common law court or forum, that is, one operating not according to educational rules but to those of common law evidence and argument, any judge presiding over such proceedings would be entitled to rule that the substance of Nordenson's civil declaration is confirmed by the legal declaration a court would be entitled to make on the matter.*

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**A further little known philosophy of this (General) Theory concerns one of its two 'pillar' assumptions, in this case, the so-reckoned "Principle of Equivalence" (which mathematically equates the differing forces of gravity and acceleration), this same assumed "Principle" having been invalidated by similar but standard non-exotic mathematics. That is, the discovery that the exotic mathematics used by Einstein to equate the force of gravity with that of acceleration has been invalidated by standard mathematics, with such assumed "Principle" thus proving nonexistent.**

**Therefore, and albeit that isolated parts of it have practical substance, a judge would be entitled to rule that such 2nd or 'General' theory considered as a whole bears no relation to physical reality.**

**To date (2013) this Second theory is not yet validated despite a core of relativity specialists over almost a century either seeking or falsely assuming its validation, with a report in the Sydney Morning Herald newspaper of Feb. 8th 2009 (p.3) conveying that astronomers will have to wait until sometime before 2015 to see if Einstein's Theory does validly describe physical reality or is the myth it has often been accused of by a minority of similarly educated theorists). First observations in 2013 of this cosmic experiment which involves a recently discovered binary pulsar, and prior to cross-examination, indicate some endorsement for Einstein's Theory. As proves often the case, a subsequent discovery of one or more factors is likely to overturn the acclaimed result.**

**That is, according to the 2009 heading: "Einstein's lingering theory to face a galactic decider", it still appears nothing yet exists to prove the theory to be factual.**

**With regard to the First or 'Special' theory of Relativity, one of the primary issues with such theory is known as "The Clock Paradox". Although discussions on this matter have ranged far and wide among scholars, it may be readily found by a court that based on Einstein's mathematical reasoning and assumptions, this Theory may be logically extended to include that two clocks can physically run either twice as fast as each other, or twice as slow as each other at the same time. From this allowable conclusion from Einstein's 'Special' Theory, a court would be entitled to dismiss the claim that the Theory as a whole describes physical reality.**