

# Equivalency's Fallacy

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## Abstract

Einstein asserts a "principle of equivalence" from his inference that inertial mass is no different from gravitational mass. This has him concluding that acceleration/braking and rotation actually create gravity that's the same as natural, mass-created gravity. But just a cursory comparison quickly reveals they're not even close to being similar, let alone equivalent. Equivalency's explicit fallacy is not insignificant. It poses a serious challenge to relativity and the big bang, threatening to invalidate both in their entirety.

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## **Acceleration-Created Gravity**

In his book, *Relativity: The Special and the General Theory*, Einstein argues that: "The gravitational mass of a body is equal to its inertial mass... that this important law had hitherto been recorded in mechanics, but it had not been *interpreted*. A satisfactory interpretation can be obtained only if we recognize the following fact: *The same* quality of a body manifests itself according to circumstances as 'inertia' or as 'weight' [1]." (Use **[Alt][←]** to return.)

("Inertial" generally means relating to or arising from inertia. Inertia is the property of matter by which it remains at rest or in uniform motion in a straight line unless acted upon by some external force [2]. A gravitational field can be broadly defined as the region surrounding any physical body, including that of subatomic particles, that exerts an "attractive" influence proportional to their mass [3]. Mass is the property of a body that is commonly taken as a measure of the amount of material or matter it contains and causes it to have weight in a gravitational field [4]. Matter is physical substance [5].)

He contends that a person experiencing a one g acceleration in an enclosed reference frame, theoretically free of "preexisting" gravitational fields, could not distinguish the difference between that acceleration's inertia and the free-fall effect of gravity resisted by the Earth's surface. Because the difference can't be perceived, they must be equivalent.

He believes that acceleration's inertia (which for him also includes braking as if a train were coming to a stop) actually creates a real gravity field for the person. This embodies, "the natural law of the equality of inertial and gravitational mass" that he in effect restates as a "principle of equivalence."

What he does is first adopt the supposition that inertial mass and gravitational mass are separate and individual types of masses. Then he suggests that they've already been found to be, "what comes to the same thing." Then he qualifies that equality as a significant preestablished law of nature that's a, "fact... strongly confirmed empirically... We have thus good

grounds for extending the [general] principle of relativity to include bodies of reference which are accelerated with respect to each other [the natural law of the equality of inertial and gravitational mass] and as a result we have gained a powerful argument for a generalized postulate [principle] of relativity." And in circular reasoning, he also contends that the, "extension of the [general] principle of relativity implies the *necessity* of the law of the equality of inertial and gravitational mass [6]." But it's all manufactured. And none of it is workable.

If "the law of the equality of inertial and gravitational mass" is really his "principle of equivalence," and if "the general principle of relativity" (" 'All bodies... are equivalent for... the general laws of nature [mechanics and light's constancy], whatever may be their state of motion' [7]") encompasses "the law of the equality of inertial and gravitational mass," doesn't that make both his "principle of equivalence" and "the law of the equality of inertial and gravitational mass" redundant? If his general principle of relativity was actually realizable, they'd essentially be useless.

It can easily be shown that acceleration does not produce a gravity field, and that its reaction is not even close to natural, mass-created gravity's. Only in the most generic nontechnical way can acceleration for the person in the enclosed reference frame be interpreted as gravity here on Earth. To draw that correlation, you have to intentionally ignore an excess of conspicuous, indisputable, disqualifying facts.

Acceleration's reaction is uniform throughout all locations of the reference frame. It acts only in one dimension, opposite the direction of motion. It doesn't coalesce and condense objects. And it requires motion.

Natural, mass-created gravity's reaction is nonuniform. It increases exponentially. And it acts three-dimensionally, spherically, radially inward toward the center of every mass or common center of multiple masses. The three-dimension distortion it produces in objects is completely different from acceleration's one-dimensional distortion.

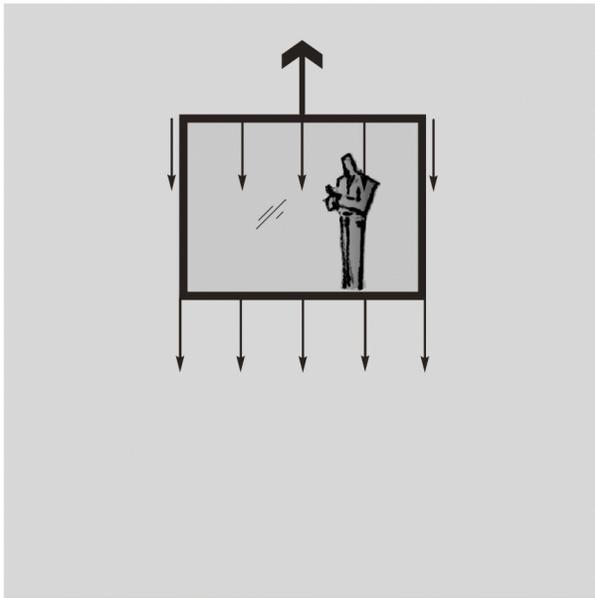
Mass-created gravity doesn't require motion. It creates motion. It perpetually coalesces, and condenses, in a runaway process that never ceases. Objects are mechanically pushed toward one another as they seek equilibrium in the ever-decreasing density of their compounding fields [8].

Acceleration's reaction is mechanical, which is essentially instantaneous. Convention has gravitational attraction acting at the speed of light via waves by a force similar to electromagnetism. Contradictorily, Einstein believes the same [9]. But that attraction is also somehow simultaneously mitigated by unobservable massless graviton particles that somehow physically exist without mass. Which if they actually were particles, wouldn't be able to act at the speed of light. They'd relativistically become infinitely large.

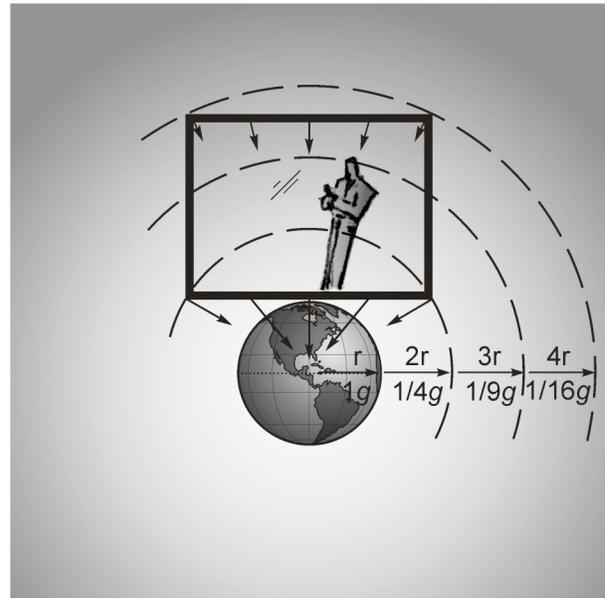
How would it ever be possible for acceleration-created gravity to coexist with real, mass-created gravity? For any accelerating object, there'd be two types that'd inherently conflict. Also, his misinterpretation of his mass-energy relation that has the mass of an accelerating object metaphysically increasing from its kinetic energy (the capacity to do work due to the motion of mass) would exacerbate the conflict [10]. The increase in mass would be increasing its real gravity while its acceleration-created gravity would also be increasing.

If the acceleration of a particle through an electromagnetic field increases its charge, which increases its mass that in turn increases its natural gravity, as is commonly accepted, then this would also further conflict with relativistic-created mass and acceleration-created gravity.

It's not difficult to recognize that acceleration does not create gravity. So its inertia and gravitational coalescing are not and cannot be the same effect. (See **Figure 1**, Acceleration & Gravity - next page)



1. ACCELERATION



2. GRAVITY

## ACCELERATION & GRAVITY

Einstein asserts that acceleration, which for him also includes braking as if a train were coming to a stop, creates an actual gravity field. But it can easily be shown that acceleration and gravity's reaction are not the same. Using an example similar to his, let's imagine that we've placed someone inside a large crate. But let's make ours transparent. We'll assume it's an independent reference frame.

For diagram 1, when the crate is being pulled upward with a one g acceleration out in space somewhere theoretically free of gravitational fields, we can see how the reactive force, indicated with the smaller arrows that we'll say corresponds to weights on springs, has to be essentially instantaneous. It's mechanical in nature. This is contrary to Einstein's claim that gravity acts at the speed of light via waves by a force similar to electromagnetic radiation.

It's also equal everywhere throughout the crate and acts in only one dimension, opposite the direction of motion. This might initially appear or feel like gravity to the person experiencing the acceleration until they look outside or acquire the proper equipment to detect the uniform distribution of the reaction.

Now for diagram 2, let's exaggerate our condition here on Earth and imagine that it's been compressed down to a few feet in diameter but where gravity's force remains the same at the surface. For clarity, let's keep our crate the same size and shape, compensating for any distortion that would also reveal that gravity is entirely different from acceleration.

Because the strength of a gravity field always dissipates exponentially per the inverse square law and because it always radiates spherically, three-dimensionally, from the center of a mass, gravity's force, as indicated by the varying length and direction of the smaller arrows that still corresponds to weights on springs, has to vary in strength and direction at every location within the crate as it rests on the Earth's surface.

Gravity coalesces. Acceleration doesn't. Gravity acts inward three-dimensionally and increases/decreases exponentially. Acceleration acts only one-dimensionally and uniformly. A cursory comparison easily reveals how gravity can never be created by acceleration, which completely undermines Einstein's principle of equivalence.

Figure 1

(13.1 Acceleration vi 8a)

Equivalency's disqualifying contradictions don't end with inertial and gravitational masses' innate incongruity. The supposition completely collapses with the realization that there's no such thing as "inertial mass" or "gravitational mass" per se. They're abstract contrivances that don't actually exist. In reality, there's only mass, the amount of material an object contains.

Whether that mass is in motion or affected by gravity does not bestow it with some unique and separate quality. When it's in motion, it has inertia. When it's "at rest" resisting the gravitational influence of a more massive body, it has weight. First separating mass into different types, inertial and gravitational, that don't actually exist, then turning around declaring that they're not actually different but the same nonexistent thing through an invented, nonexistent "principle of equivalence" is nonsensical.

More concerns arise from this artificial precept. It's generally accepted that since a photon has momentum (because it's mistakenly assumed to be a particle), it must have inertial mass. And because of the "principle of equivalence," that inertial mass must also be gravitational mass. So a photon has gravitational mass. Which means, it should be affected by gravity like any other object.

This errant reasoning has led to the misconceptions of a black hole's event horizon (the threshold where the pull of gravity has become so strong or spacetime so curved that not even a photon can escape [11]); the notion of a gravitational lens (a photon's path is altered by gravity's pull because of its mass [12]); and the more conventional explanation for the idea of gravitational redshift (a photon's impeded escape from a gravitational well due to gravity's pull on its mass that decreases its energy, which reduces its frequency [13]). All of these notions are premised on the supposition that a photon is a real particle that actually has "gravitational mass" even though that mass has never been observed [14].

Max Planck<sup>1</sup> first advanced the hypothetical notion of a photon (a massless quantum of radiant energy) in an attempt to explain the frequency distribution of radiation [15]. Unfortunately, the concept has evolved and become fixed in quantum theory as a real particle.

Still, energy's wave-particle duality is heavily weighted toward being exclusively wavelike in nature. But the whole issue of a photon's particle nature is undermined by simply acknowledging that radiation by definition is not matter. So it cannot have mass, whether it is quantized or not. With the acceptance of this elemental fact, the concepts of a black hole or at the very least its event horizon, a photon based gravitational lens, and the orthodox explanation for gravitational redshift all evaporate prior to invoking Einstein's unfounded "principle of equivalence."

### **Light's Curvature in Acceleration-Created Gravity**

Einstein continues to argue that because a "ray of light" projected perpendicular by someone experiencing acceleration curves downward as it traverses their acceleration-created gravity field, his general principle of relativity (the laws of nature must hold true for all reference frames regardless of their motion) allows us to, "*conclude, that, in general, rays of light are propagated curvilinear in [all] gravitational fields* [16]." What he's really arguing for in a backhanded way is equivalence.

He intentionally avoids the question of how, or if, light would actually curve in an acceleration-created gravity field. He wants us to instead blindly accept that he's providing us the factual evidence that's already been established.

With more misdirection, he attempts to correlate two completely different conditions. Neither of which produce light's actual curvature. Its apparent curvature in the gravity fields of massive bodies is the product of its refracted slowing through the field's decreasing density, not because it's following the geodesic (the shortest possible line between two points on a curved surface [17]) of (nonexistent) spacetime's impossible two-dimensional curvature or because

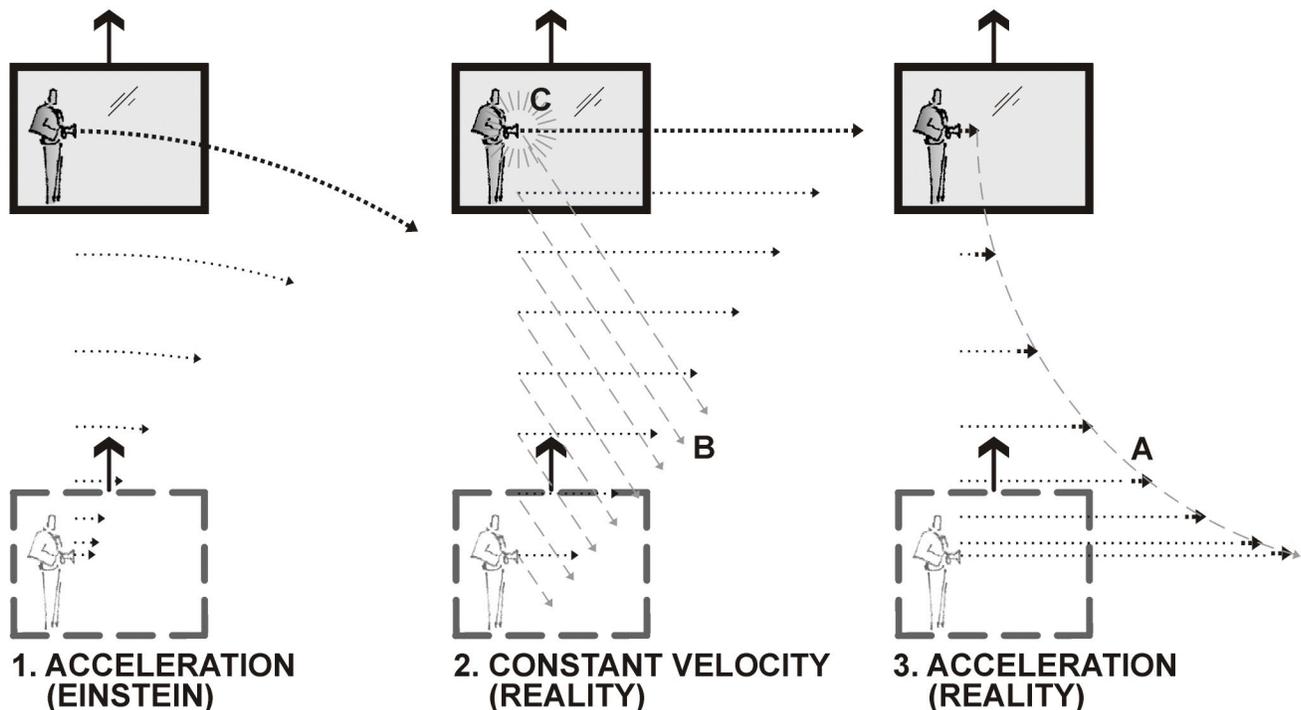
1. German physicist, 1858-1947.

its photons are being "pulled" from their otherwise straight path by gravity. He'd have a hard time disagreeing with that. He (contradictorily) affirms himself that light refracts: "A curvature of rays of light can only take place when the velocity of propagation of light varies with position [in gravity fields] [18]."

His assertion that light curves when its source is under acceleration is just as wrong. He misportrays how a perpendicular "ray of light" would behave under acceleration, implying that its end would be dragged upward as if it were attached to its moving source that causes its increased bending with increasing velocity. He wants us to envision it as if the light was arcing downward as it departs, appearing like water streaming out from a garden hose [19].

But the path of a "ray of light" would always propagate perpendicular in a straight line from its source, assuming as he does that it's theoretically free of "existing" gravity fields. This can be easily shown if we quantify it into a series of projected photons.

Each consecutive photon would be seen as defining an inverted arc with decreasing curvature if viewed in a series of stop-action photos taken at equal intervals. But each of their individual paths would have to remain straight and perpendicular relative to their point of origin. His misrepresentation is readily seen when comparing it to what light's behavior would be under constant velocity. (See **Figure 2**, Light Under Perpendicular Acceleration)



## LIGHT UNDER PERPENDICULAR ACCELERATION

Using our example that's similar to Einstein's, let's again imagine that our transparent crate is being pulled upwards with a one g acceleration somewhere out in space theoretically free of any gravity fields so that the person standing inside would not be able to perceive the difference between the crate resting on the ground or its upward acceleration.

Einstein contends that because the conditions appear the same they must be the same. He argues that the crate's uniform acceleration must actually produce a real gravitational field. In a backhanded way, he indirectly correlates how a perpendicular light ray transmitted by the upward accelerating person, as depicted in diagram 1, would curve in a manner no different from the curving light rays passing through the gravity field of a massive body like the Sun.

But to make the argument, he misrepresents how a perpendicular ray of light propagates under acceleration. He implies that it moves upward in unison with the crate as it would under constant velocity, as shown in diagram 2. And then he wants us to infer that it should be bending downward as if being "pulled" by gravity similar to how water arcs downward as it leaves a garden hose.

In reality, an upward accelerating source would produce a new quantum of light each moment, leaving behind the previous, each propagating parallel in the perpendicular direction with an upward velocity that would remain constant at the rate it was emitted, as indicated in diagram 3. Once the light separates from its source, there's no force causing its upward velocity to increase.

Inferring an inverted, downward curving path, indicated by the dashed line at **A**, as a ray of light would not be correct either. It would be connecting different quanta of light propagating separately in parallel perpendicular paths. The angled dashed lines at **B** though could be considered a single ray of light.

Light emits radially in all directions from its source, not just in the direction the flashlight is pointing, as implied at **C**. Under constant velocity, it would still be moving in unison with its source. But it's not bent or in any fashion being pulled downward or following the presumed geodesic of nonexistent spacetime's impossible curvature.

Just as Einstein uses light's nonexistent curving under acceleration to infer a gravity field, we have to use its actual perpendicular propagation under acceleration as evidence of the absence of a gravity field. This has us concluding again that acceleration and gravitation are not the same. So his principle of equivalence cannot be valid.

**Figure 2**

(14 Ray vi 4a)

The invalidating contradictions don't stop here either. As if aware of the flaws but desperate to rationalize them anyway, Einstein later, when off topic, covertly slips in an ad hoc qualifier as if acknowledging its disqualifying difference makes it okay. He suggests that acceleration-created gravity fields are "homogeneous."

"[For a] system of reference... in uniform acceleration... there exists a state which, at least to a first approximation, cannot be distinguished from a gravitational field. The following concept is thus compatible with the observable facts: [The system of reference] is also equivalent to an 'inertial system'; but with respect to [that system of reference] a (homogeneous) gravitational field is present (about the origin of which one does not worry in this connection) [20]." He doesn't want us worrying about the origin because he knows (maybe mostly subconsciously) that a homogeneous gravity field is impossible and nonexistent and contradictory.

If it were homogeneous, it wouldn't be, and can't be, a real gravity field. Their inherent nature is to vary everywhere. It's their innate variability that causes gravitational coalescing and condensing of objects.

Their accelerating free-fall toward one another is in reality due to their mechanical reactive search for equilibrium in the ever-decreasing density of the universal field's radiant electromagnetic energy that corresponds to all (three-dimensional) space. Its density innately decreases exponentially at every object because of the inherent geometry of a sphere that's bound to the inverse square law. The greater pressure of its higher density constantly pushes all objects inward toward its lowest density that always lies directly between them toward their common center of mass.

The "homogeneous" stipulation of acceleration-created gravity fields is sometimes found in online descriptions as well, also hastily slipped in and ignored without qualification because of the obvious contradiction. Acceleration's presumed gravity field cannot be inhomogeneous. And real gravity's cannot be homogeneous.

In his 1907 paper, *On the Relativity Principle and the Conclusions Drawn from It*, Einstein states, "According to §17, equation (30) is also applicable to a coordinate system in which a homogeneous gravitational field is acting... While assuming that equation (30a) holds for an inhomogeneous gravitational field as well [21]." He's referring to his reasoning behind gravitational time dilation (time's presumed slowing in a gravity field, the stronger the gravity, the slower time's rate), which is dependent on equivalence and contradictorily on light's constancy in a gravity field.

What's significant is that it seemingly reveals his awareness from the outset of the inherent difference between accelerated-created, "homogeneous" gravity fields and natural, mass-created, "inhomogeneous" gravity fields. He apparently realizes the problem for equivalence, but accepting the invalidating consequences is just not an option for him.

So he proceeds anyway, working it both ways, moving back and forth, obscuring the nullifying conflict, hoping it won't be noticed. Despite his relentless obfuscation, acceleration's theoretical, nonexistent, homogeneous gravity fields can never equal real, mass-created, inhomogeneous gravity fields. It just doesn't work.

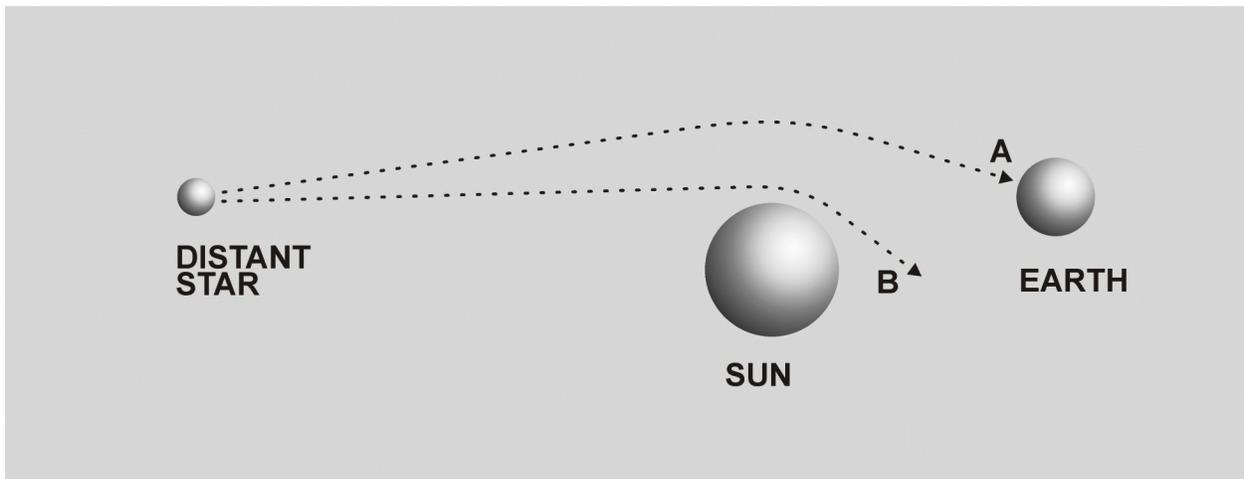
How can Einstein argue with a straight face that acceleration (and braking and rotation) create gravity fields because their reactions are the same as natural, mass-created gravity's, but then come back later after the fact and concede that they're not actually the same, they're different (homogeneous, inhomogeneous), yet still maintain they're gravity fields?

It was their sameness that was the whole reason why he decided they had to be gravity fields in the first place. If that sameness is lost, the reasoning doesn't hold. Only Einstein is brash enough to propose such spurious reasoning and expect us to believe it. It's inexplicable (almost) that most do.

The other invalidating contradiction is light's curving in gravity fields. If, "A curvature of rays of light [through gravity fields] can only take place when the velocity of propagation of light varies with position [in gravity fields] [22]." as Einstein contends, a consequence of its refraction through the field's "inhomogeneous" density, how could it ever curve through a field with "homogeneous" density? It wouldn't be able to. So if acceleration's gravity fields are made homogeneous to correspond to acceleration's homogeneous reaction then a ray of light's curving becomes impossible and the argument again falls apart.

If light doesn't actually curve for the accelerated person then either light doesn't curve in all gravity fields, which violates his general principle of relativity and nullifies Sir Arthur Eddington's<sup>2</sup> 1919 (presumed) observational confirmation of it [23] or acceleration doesn't create a gravity field, which invalidates his "principle of equivalence." At best, the whole assertion, like so much else of relativity, is permanently relegated to the theoretical realm with no possibility of ever having any practical relevance to reality. (See **Figure 3**, Light's Bending; **Figure 4**, Light's Refraction)

2. English astronomer, physicist, and mathematician, 1882-1944.



### LIGHT'S BENDING

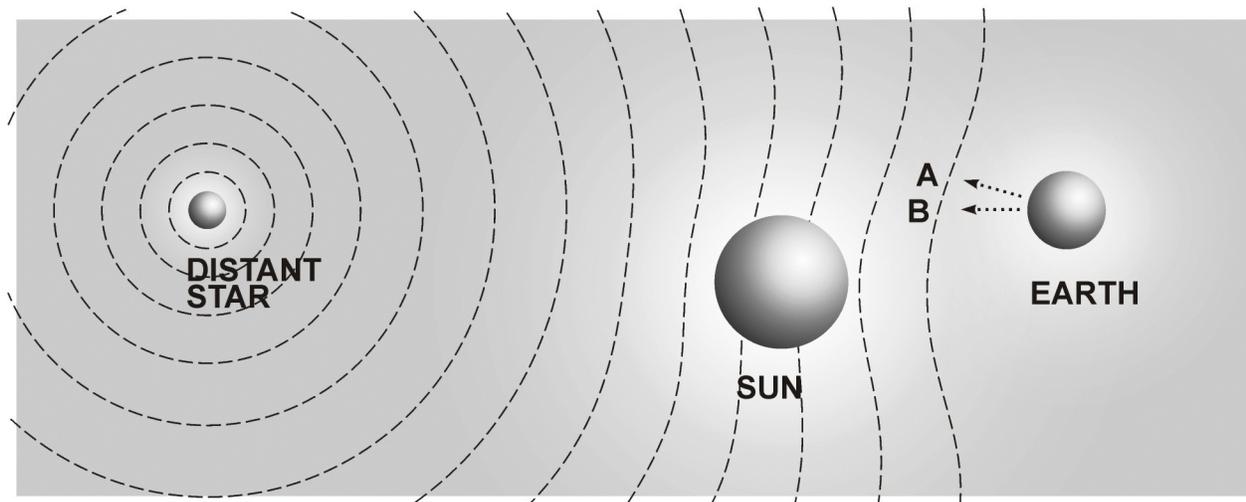
Our current belief is that a "ray" of light from a star or any distant object passing near a massive body like our sun is being pulled by gravity, that it's being bent from its otherwise straight path in the direction of **B** as it follows space's geodesic that somehow curves two-dimensionally in the vicinity of mass. And when viewed from Earth, its position is distorted in the direction of **A** due to an optical illusion.

Even though Einstein contends that light's distortion is actually due to its slowing through gravity fields, which is nothing more than refraction, which contradicts relativity's founding premise, light's fixed velocity, we reject his explanation. Instead, we hold to our belief that a photon, which remember is only a hypothetical quantum of massless energy, is subject to gravity's influence. We first mistakenly assumed that a photon is a particle. And then we incorrectly reason that because it's in motion it must have momentum. If it has momentum, it must have inertial mass. And then because of relativity's principle of equivalence, if it has inertial mass it must also have gravitational mass. And if it has gravitational mass, it must then be affected by gravity.

We're highly motivated to retain this convoluted logic because if we use light's refracted slowing like Einstein, we're abruptly confronted with the total collapse of relativity, which is wholly dependent on light's constancy. Incredibly, Einstein actually agrees that relativity would completely unravel if it were found that light's velocity was not fixed but variable.

**Figure 3**

(15.1.1 Refraction vi 5a)



### LIGHT'S REFRACTION

Light refracts through gravity fields. The distant star appears displaced in the direction of **A** not because light rays follow the impossible curvature of two-dimensional space or a resultant optical illusion but because the light in that direction reaches us slightly before the light coming directly straight from the star in the direction of **B**. Light's velocity slows through the decreasing density of the Sun's gravitational field, depicted in section as the diffusing background, just as any wave travels slower through a less dense medium, as portrayed by the series of circular and waving dashed lines that indicate the varying velocity of the incoming light emanating from the distant star.

It's also light's refracted slowing that's responsible for the gravitational lensing of distant galaxies or quasars that are split into two or more images that are assumed to be the product of the mass of some unseen foreground galaxy that's closer but fainter. But more often than not, it's just the common center of mass of any number of galaxies or galaxy clusters that is located between us and the object along its line of sight that's responsible for the lensing effect, which is why the refracting mass is so often never identified.

**Figure 4**

(15.1.2 Refraction vi 5a)

## Relativistic Effects and Acceleration

The term "relativistic" refers to effects resulting from relativity. In this context, it'd be special relativity, Einstein's declared, "principle of the physical relativity of all *uniform* motion... [where] uniformly moving co-ordinate systems devoid of rotation... [have] exactly the same general laws... the idea it conveys to us, every motion must be considered only as relative motion... [where the] general laws of nature (*e.g.* the laws of mechanics or the law of the propagation of light *in vacuo*) have exactly the same form in both cases [when drawing comparisons] [24]." In theory, light's presumed constancy (mathematically) forces a moving object's (or reference frame's) time to slow, its contraction in the direction of its motion, and the increasing mass of accelerating objects [25].

But he asserts that an object's rate of motion, or whether it even has any motion, is a subjective choice of each observer. Ultimately, all motion is relative and discretionary [26]. If that were actually true, how could acceleration-created gravity be real? It could be manifested at the whim of every observer. Also, it'd conflict with the choices of every other observer. And it'd wreak havoc with gravitational interactions.

He also contends that relativistic effects of special relativity can't occur in (natural, mass-created) gravity fields. Light's velocity is not fixed in gravity fields. It's variable: "the velocity of propagation of light varies with position [in gravity fields]... [Special relativity's] results hold only so long as we are able to disregard the influences of gravitational fields... The special theory of relativity has reference to Galileian domains, *i.e.* to those in which no gravitational field exists... The principle of inertia and the principle of the constancy of the velocity of light are only valid with respect to an *inertial system* [27]." So relativistic effects have no possibility of ever working in gravity fields. (The term "Galileian<sup>3</sup> domains" refers to conditions where the basic laws of classical mechanics remain the same everywhere [28].)

3. Galileo Galilei was an Italian astronomer, physicist, and engineer, 1564-1642.

If all gravity fields really were the same, and if relativistic effects can't occur in gravity fields, how could they ever occur for any accelerating object? Subatomic particles in particular come to mind. They'd have gravity fields from their acceleration. So how could they ever demonstrate the increasing mass of "Einstein's" celebrated mass-energy equation,  $E=mc^2$ , along with their time's (presumed) dilation [29].

But how can relativistic effects ever work anywhere under any conditions? Gravity fields are everywhere. They extend indefinitely. And every object has its own self-gravity whether it's a subatomic particle or our (presumed) finite universe. So there's no place where gravity fields don't exist. So there's no place where light's velocity can be fixed. So there's no place where relativistic effects can occur.

But if there's no place where light's velocity can be fixed, wouldn't relativity lose its founding premise? Yes it would. What happens then? Wouldn't the entire theory collapse? It'd have to.

## **Light's Compounding**

Beyond light's nullifying variability in gravity fields, its constancy is conceptually impossible as well. It's unworkable in three dimensions. In our real world, it compounds with the motion of its source and that of other reference frames just as all of the Michelson-Morley<sup>4</sup> and Sagnac<sup>5</sup> type experiments demonstrate [30]. They both establish that light always leaves its source at 186,000mi/s in every direction at the same time regardless of motion [31].

Imagine you're in one of Einstein's thought experiments riding a train with a flashlight that you're pointing directly forward. He'd have us believe that the speed of its light would be 186,000mi/s less the train's speed, that the train's rate of time would be running slightly slower, and that it and you would be physically contracting but only in the direction of its motion all to satisfy his assumption that light's velocity is fixed. Most of us believe this to be true. We have no reason to doubt our authorities.

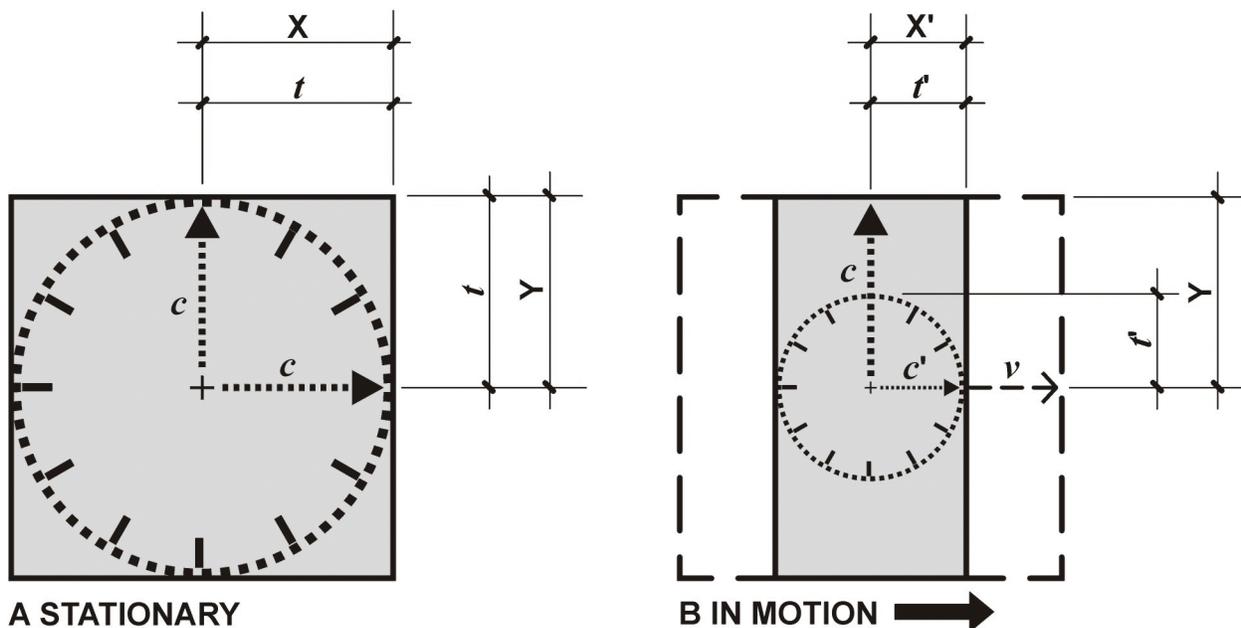
4. Albert Michelson, 1852-1931, and Edward Morley, 1838-1923, were American physicists.

5. Georges Sagnac was a French physicist, 1869–1928.

But what would happen if you then pointed another flashlight perpendicular (or at any angle) to its motion? With no contraction or motion in that direction, and with time's "slower" rate, that light's velocity would not only differ from the forward pointing light but it'd exceed 186,000mi/s, the universe's (presumed) maximum speed limit.

This ordinary circumstance that's impossible to deny, that should be obvious to everyone but isn't, reveals the unresolvable conflict inherent in light's presumed constancy. Conceptually, in our real three-dimensional environment, it cannot be fixed. It's mechanically required to compound with the motion of its source and that of other reference frames. This completely undermines any argument for its constancy, which in turn completely invalidates relativity [32].

Despite its obviousness, Einstein, with all of his presumed insight and reputed intellect, appears to have failed to simply perceive light's, and time's, inherent three-dimensionality. He reasons instead only in the one abstract dimension of linear motion. I know, it's hard to believe. How could that happen? No one could be that cognitively impaired. But it's either that or he's misleading us intentionally. He does concede, though, that if it were found that light's velocity was not constant in all cases then relativity would out of necessity completely unravel [33]. (See **Figure 5.1**, Light's Constancy; **5.2**, Light's Compounding)



### LIGHT'S CONSTANCY

A simple way to illustrate the impossibility of light's fixed velocity (relativity's founding premise) is by establishing a two-dimensional square reference frame that could be of any size, as depicted in diagram A. When theoretically stationary, its  $X$  and  $Y$  dimensions from its center would correspond to light's constant velocity, indicated by the arrows at  $c$ , and time's constant rate, symbolized by the clock-like circle that fills the entire reference frame equally that equates to  $t$ .

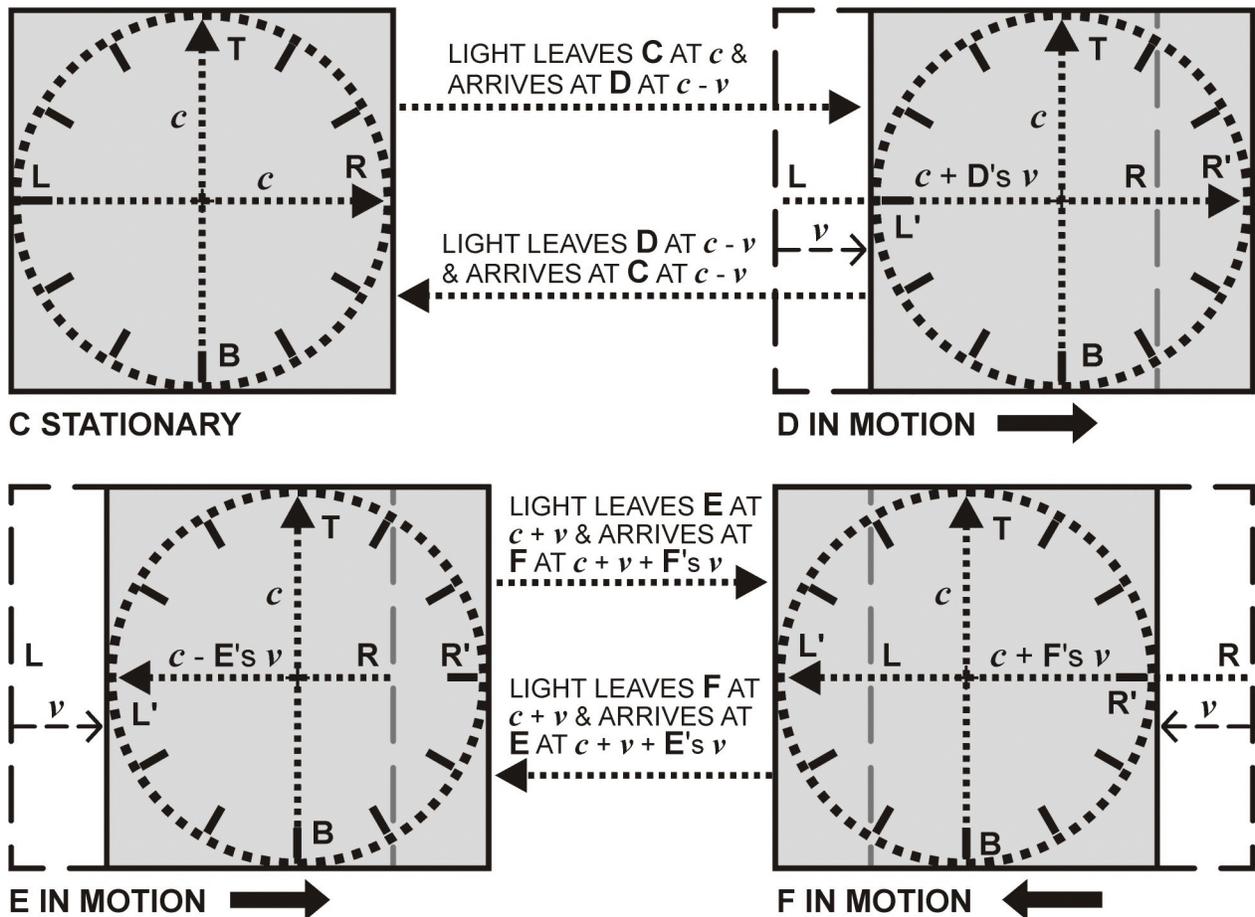
Einstein would contend that when the reference frame is put in motion, let's say moving from left to right at velocity  $v$ , as depicted in diagram B, for light's velocity to maintain its constancy in the direction of motion, it would have to slow in that direction by the amount of the reference frame's velocity to  $c'$ . This would require the reference frame to contract correspondingly in the direction of motion to the distance  $X'$  while its rate of time also contracted ("slowed/dilated") equivalently to  $t'$ , as implied by the smaller clock-like circle.

But since there's no motion in the perpendicular direction, the reference frame's  $Y$  dimension and light's velocity,  $c$ , are not required to contract to maintain its constancy. And since time's contracted rate,  $t'$ , has to apply equally over the entire reference frame, this creates an unresolvable conflict in every other direction, as indicated by the smaller clock-like circle. Its contracted time,  $t'$ , corresponds to the contracted  $X'$  dimension and light's contracted velocity,  $c'$ , in the direction of motion. But in the perpendicular direction, its contracted rate conflicts with the noncontracted dimension at  $Y$  and light's noncontracted velocity at  $c$ , which would cause it to exceed 186,000mi/s by  $v$ .

This unresolvable conflict clearly shows how light's velocity can only remain fixed, theoretically, in the one abstract dimension of linear motion. Even if time had a real existence and was a viable constituent of the universe, light's constancy would still be conceptually impossible in two or the three real dimensions of our physical environment. Which means, its velocity has to compound with the motion of its source and that of other reference frames. Left without the possibility of light's velocity ever being fixed, relativity loses its underlying premise and becomes altogether untenable.

**Figure 5.1**

(3.1 Light's Constancy vi 7a)



## LIGHT'S COMPOUNDING

Light compounds with the motion of its source and that of other reference frames just as we'd naturally infer. The four conditions represent generic reference frames theoretically free of gravity fields to avoid light's variability. The clock-like circle in each symbolizes time's theoretical rate that remains constant throughout the entire reference frame. The dotted arrowed lines denoted with  $c$  indicate light's velocity. The dashed grey lines indicate the reference frame's original location prior to motion.

Reference frame **C** is portrayed as theoretically stationary. For its observers, light moves from left to right and from the bottom to the top at  $c$ . An outside observer also theoretically stationary would record the same.

For reference frame **D**, it's depicted as moving from left to right with velocity  $\nu$ . For those observers, light moves normally as if it were stationary from **L** to **R** and **B** to **T** at  $c$ . This is what all of the Michelson-Morley and Sagnac type experiments show. Light always leaves its source at the same rate in all directions at the same time regardless of motion.

For an outside observer that's theoretically stationary, light begins from its initial position at **L** and arrives at **R'**. Light travels a longer distance in the same amount of time, leaving **L** at  $c + D's \nu$ . This is a compounding of velocities. Light projected between **C** and **D** also indicates its compounding as noted for the different directions.

For **E**, this time light is shown as projected from right to left, opposite the direction of its motion. Its observers again record the light's progress but this time from **R** to **L** as if stationary. But a stationary, outside observer records it traversing a shorter overall distance from **R** to **L'** in the same amount of time. This compounded velocity would be slower than  $c$  by  $E's \nu$  because the light leaves **R** opposite the direction of **E's** motion at  $c - E's \nu$ .

**F** is the same as **D**, just in the opposite direction. The light projected between **F** and **E** indicates the compounding conditions for the other circumstances of relative motion.

**Figure 5.2**

(3.2 Light's Compounding vi 4a)

## **Time & Space**

In addition to the fictitiousness of light's constancy, "time" is just as nonexistent. It's not an inherent property of the universe. We ourselves create time and define its rate by selecting objects with periodic motion that we use as reference. The Earth's rotation and orbit or the natural frequency of the cesium atoms in atomic clocks are common examples. It's a useful concept that we establish. There's nothing mysterious about it.

Time cannot exist outside of the physical process that we've selected to use as a benchmark. It cannot vary with subjective choices of motion. It cannot change with the variables of an equation. And it cannot originate from an assumed beginning of the universe or vary with its assumed varying rate of expansion or run backwards if it were to begin collapsing in on itself. There's no such thing as time travel, or looking back or forward in time. It's only periodic motion used as a reference set by us [34].

Einstein never actually defines time. He claims to. But he only offers us an explanation for how an individual clock behaves near a moving reference frame, which is no definition [35].

But even if time did exist and could change with motion, its rate would not be slowing/dilating as he contends. It'd be increasing. A time that corresponds to light's decreasing velocity and length's contraction so that light's constancy can be maintained when its source is (subjectively decided to be) in motion would yield a contracted rate of time. A contracted rate of time would be a faster running time, not slower. For the same 60 seconds to pass over a shorter condensed interval, it'd have to proceed at a quicker pace.

Space also does not exist. It's not something. By definition it's the nothingness between objects [36]. Being nonexistent, it can never curve to facilitate gravitation or expand/stretch to produce cosmological redshift.

Einstein's space is also nonexistent because of its two-dimensionality. He has it expressing as a curving plane that dents underneath massive bodies to cause their gravitational attraction [37]. It also expresses as the curving planar

surface of a sphere to maintain the uniformity of our (presumed finite) universe [38]. A plane by definition doesn't exist. Without the third dimension of height, existence is not possible. It can only define a location that's planar [39].

If his (nonexistent) space were three-dimensional, it could never curve. Curvature is a property limited to one or two dimensions [40]. Any change in the three-dimensional volume of any substance can only express as a variation in its density.

His amalgamation of his (nonexistent) space with (nonexistent) time into a four-dimensional "spacetime" is even more unworkable. It's an inconceivable reality that can't be conceptualized. What's worse, he has that four-dimensional spacetime expressing two-dimensionally, curving as it dents underneath three-dimensional massive bodies [41]. What a mess.

The fallacy of light's constancy (its factual compound and variability) by itself has devastating consequences for relativity. Its viability becomes unattainable. With space and time's factual nonexistence added to the mix, where does that leave it? It becomes even more meaningless. It has no chance of ever being feasible regardless of interpretation.

The same is true for every other theory that's premised on relativistic ideology. They all become defunct when assuming light's constancy, or space's existence or curvature, or time's existence or changing rate. Devoid of reality, they're all permanently confined to the theoretical realm as well, nothing more than fanciful arguments contemplated for amusement.

## **Gravitational Time Dilation**

Originally proposed by Einstein in his 1907 paper, "On the Relativity Principle and the Conclusions Drawn from It," gravitational time dilation is time's (presumed) slowing in gravity fields. The stronger the gravity, the slower time's rate. Or the higher the altitude, the faster clocks run [42].

It's generally justified by imagining a hypothetical scenario that has an inertial reference system accelerating from free fall in a gravity field.

As it first falls past a higher position then a lower, both arbitrarily set at rest stationary in the gravity field, its rate of time would be slower at the lower position because of relativistic effects. A moving reference frame's time is forced to slow to maintain light's fixed velocity. Its increasing velocity would cause its time to further slow or dilate.

Because his "principle of equivalence" has acceleration (along with braking and rotation) creating gravity fields that are the same as natural, mass-created gravity fields, their rate of time has to be equal as well. So a clock in the gravity field at the lower position has to also be running slower than one at the higher position just like the clock in the accelerating reference frame [43].

According to Einstein: "There exist 'clocks' that are present at locations of different gravitational potentials [in the gravity field] and whose rates can be controlled with great precision; these are the producers of spectral lines [44]." The clock at lower position will be redshifted as compared to the higher because its slower rate of time will produce a lower frequency. (Redshift in general is the displacement of the spectral lines of an object toward longer wavelengths in the direction of the red end of the electromagnetic spectrum. An object's particular spectral lines are the hallmark of the atoms and molecules of which it is composed.)

Where to begin. There's so much wrong it's hard to know. I guess it should be noted up front that in this paper he argues for gravitational time dilation that's contradictorily based on light's constancy, in gravity fields (pages 302-307). But later (page 310), he asserts light's variability, in gravity fields: "These equations too have the same form as the corresponding equations of the nonaccelerated or gravitation-free space; however,  $c$  is here replaced by the value  $c \left[ 1 + \frac{\gamma \xi}{c^2} \right] = c \left[ 1 + \frac{\Phi}{c^2} \right]$ . From this it follows that those light rays that do not propagate along the  $\xi$ -axis are bent by the gravitational field [45]." So fundamentally, even in the same paper no less, he's inherently conflicted. Light can't be both constant and variable, either in or out of gravity fields.

But Let's start with the inertial reference frame's acceleration. Because it's accelerating, its motion is (theoretically) producing relativistic effects. But as covered earlier, they don't actually exist. There's no such thing as "time" and it's impossible for light's velocity to be fixed.

But even if they did exist, light's constancy would cause time's rate to increase, not slow. And its velocity in every direction other than directly forward would be exceeding 186,000mi/s. So right from the beginning, gravitational time dilation has no validity either.

We could just stop here. There's no need to go any further. The point is sufficiently made. But we're going to continue anyway. The explanation presents us with a purely hypothetical situation. It's theoretical. The reference frame doesn't exist, and neither do the positions in the gravity field. They're just made up.

If we assume the positions are physical reference frames, what is it that's keeping them at rest? "At rest" usually means sitting on the surface of a larger body. There's nothing there to prevent their continued free fall. At best, their relationship with the inertial reference frame is a contrived "what if" situation. So the whole narrative doesn't and can't produce tangible real-world results.

If the inertial reference frame is free falling in the gravity field, where is the necessary reaction that produces its acceleration-created gravity field? Free fall has no reaction. If the reference frame's acceleration-created gravity field doesn't exist, there's no way to equate it through Einstein's "principle of equivalence" to the natural, mass-created gravity field. So there'd be no way to infer that the reference frame's slowing rate of time can be applied to the gravity field's "at rest" positions either.

But remember, there is no such thing as "time." It's not a property of the universe. So, as already mentioned, it can't be slowing with the reference frame's motion. But also, if it doesn't exist, its presumed slower rate can't be equated to the natural, mass-created gravity field through his "principle of equivalence."

And his "principle of equivalence" is completely untenable. Nothing about it works. We debunked it in the beginning. Acceleration (or braking or rotation) does not in any way produce a gravity field. And even if its (homogeneous) reaction could somehow be qualified as a field, it could never be equated to the (inhomogeneous) field of natural, mass-created gravity. They're not the same in any respect.

How is it exactly that an element's spectral lines can be regarded as a clock? If time doesn't exist, how can they convey its (nonexistent) rate? Even if time did exist, why would a change in its rate affect the frequency of spectral lines? It'd still be an ungrounded assumption. It's the same for his assertion that its slowing would shift them toward red end of the spectrum.

Also, some actual physical objects composed of the same elements would have to be present at both "at rest" positions in the gravity field to record a difference in the frequency of their spectral lines to be able to infer a difference in their rate of (nonexistent) time. They don't exist either.

Nothing about gravitational time dilation has any chance of ever actually working in our real physical world. It has to remain a strictly theoretical pursuit.

### **Rotation-Created Gravity**

Invoking his "principle of equivalence" again, Einstein also contends that a person standing at the edge of the rotating disk (or on the surface of a rotation sphere) would feel the outward pull of its centrifugal force as if it were gravity. So it must be gravity. Like with acceleration/braking, he actually believes that rotation creates a real gravity field [46]. But the centrifugal force's outward thrust also only mimics gravity's apparent attraction to someone unable to perceive or measure the actual effect. Also just like with acceleration, it's not anywhere near the same.

Rotation's centrifugal force acts outward. And it acts in only two dimensions, perpendicular to the rotation's axis. Natural, mass-created gravity acts inward, three-dimensionally, spherically, radially, toward the center or common center of every mass.

A centrifugal force becomes stronger with distance. Natural gravity becomes exponentially weaker with distance. A centrifugal force disperses objects outward. Real gravity continuously coalesces and condenses objects inward toward a center of mass or common center of mass in a ceaseless runaway process that perpetually recycles them back into their primordial state of radiant or plasma energy.

A centrifugal force's reaction is mechanical, essentially instantaneous. Convention and Einstein hold that gravity acts via waves at the speed of light by some kind of force similar to electromagnetism [47]. It's also thought to be mitigated somehow by graviton particles that are believed to exist physically without mass [48]. (If they actually did exist, they'd have mass. So they wouldn't be able to act at the speed of light. Relativistically, they'd become infinite [49].)

The centrifugal force doesn't require mass. Real gravity does. The centrifugal force requires rotation. Natural gravity doesn't require rotation or any other motion. The centrifugal force becomes stronger as rotation increases. Gravity doesn't. How can rotation-created gravity be real when according to Einstein the rate of an object's rotation or whether it even has any rotation is a subjective choice of each observer [50]? They'd be imparting it with or withdrawing its gravity.

The centrifugal force of a rotating body would vary from zero at its poles where there's no rotation to its maximum at its equator where rotation would be the fastest. So centrifugal-created gravity would vary at the surface over the entire body while natural, mass-created gravity is the same at the surface over the entire body.

The distortion that each imparts to a body is completely different. Rotation's centrifugal force acts two-dimensionally while dispersing outward. Gravity's distortion acts three-dimensionally and condenses inward.

If the relativistic effects of special relativity, time's slowing, length contraction, the increasing mass of accelerating objects, can only manifest outside of gravity fields where light's velocity is no longer variable but constant, as Einstein insists [51], how can they occur for any rotating body? They'd have a centrifugal-created gravity field. And according to his "principle of equivalence," it's the same as natural, mass-created gravity. So it'd have to be causing the same variability in light's velocity that nullifies relativistic effects.

Einstein never suggests that the accelerating rotation of a flat disk, or of a celestial body, or of a particle would generate a gravity field opposite the direction of its rotation or spin. If it did, that'd mean, according to his principle of relativity, that for any spherical body with linear acceleration that also had increasing rotation, it'd be experiencing a slowing in its overall rate of time and a decrease in its diameter in the direction of its linear motion. It'd have acceleration-created gravity that acted opposite the direction of its linear motion along with a relativistic increase in its mass that'd be increasing its real gravity.

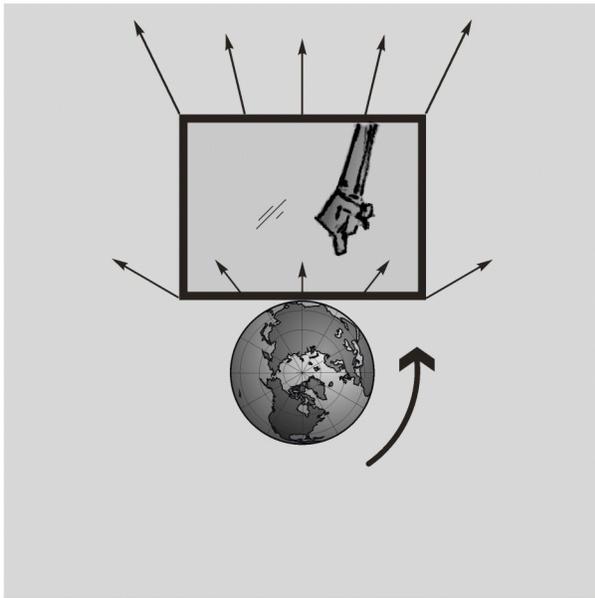
Its increasing rotation would also be decreasing its circumference while slowing its rate of time that would vary from zero at its poles to its maximum at its equator. Time's variable rate from increasing rotation would conflict with time's slowing rate from linear acceleration.

The body would also experience increasing centrifugal-created gravity along with acceleration-created gravity that acted tangentially opposite its increasing rotation that would vary from zero at its poles to its maximum at its equator. Both of which would conflict with its natural, mass-created gravity and the gravity created by its linear acceleration and that would also be relativistically increasing its mass. Rotation's increasing rate would be relativistically increasing its mass as well.

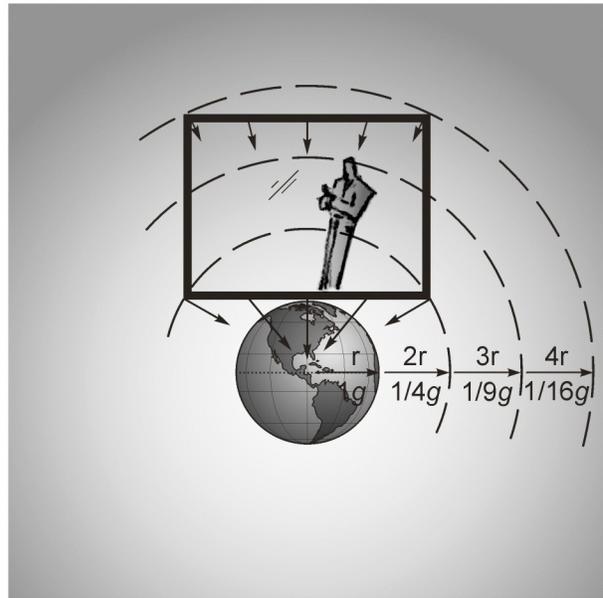
So what we'd end up with is a huge mess, six conflicting types of gravity:

- natural gravity from the body/particle's innate mass
- more natural gravity from relativistically-created mass from linear acceleration
- equivalency's acceleration-created gravity from linear acceleration
- equivalency's increasing centrifugal-created gravity from increasing rotation
- increasing gravity from relativistically-created mass from increasing rotation that varies from its center out
- equivalency's acceleration-created gravity from increasing rotation that varies from its center out

It's not difficult to understand why he may have been motivated to overlook these invalidating contradictions. (See **Figure 6**, Rotation & Gravity; **Figure 7**, Reference Frame Distortion)



1. CENTRIFUGAL FORCE



2. GRAVITATION

## ROTATION & GRAVITY

Einstein's inference of equivalency with gravity isn't limited to acceleration and braking. He actually believes that rotation creates gravity as well. But this too can easily be shown to be false. Rotation's centrifugal force and gravity are not anywhere near the same. Neither are rotation and acceleration. For our discussion, let's continue to use our reference frame that's similar to his and imagine that we've put someone inside a large transparent crate. But let's say that it's attached to the Earth that we've again compressed down to a few feet in diameter.

For diagram 1, if we were to eliminate the Earth's gravity and set its rotation rate to where the centrifugal reaction approximated gravity's, we can see how that reaction, as indicated with the smaller arrows that could still correspond to weights on springs, would again be mechanical, essentially instantaneous. Which is still contrary to Einstein's assertion that gravity acts at the speed of light via waves.

Its reaction would vary throughout the crate like gravity's but only in two dimensions, perpendicular to the axis defined by its rotation. It would also act outward from the axis where it'd be nonexistent, becoming increasingly stronger farther out. It might appear like gravity to the crated person unless they could see outside or had the equipment to detect the reaction's opposite direction and two-dimensional dispersal.

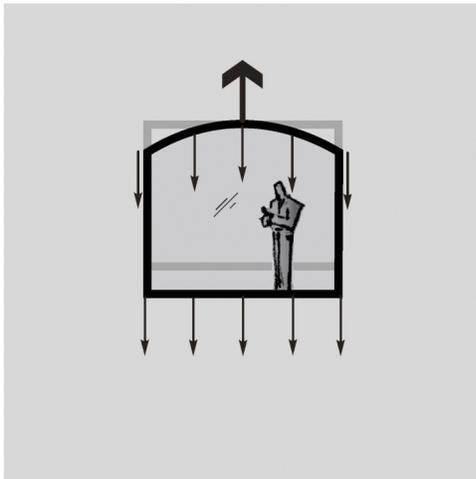
For diagram 2, let's again keep gravity's force the same for our shrunken Earth and let's eliminate its rotation for clarity. Let's also keep the crate's same size and shape as it rests on the surface, omitting any distortion for now for simplicity. The difference in the rotating crate's distortion, just like for the accelerating crate, would also reveal that they don't create gravity.

Because the strength of gravity always dissipates exponentially, radially, three-dimensionally, from the center of any mass, gravity's force, as indicated by the varying length and direction of the smaller arrows that could also represent weights on springs, would vary in strength and direction but at every location within the crate, three-dimensionally, not two-dimensionally. And its reaction would be inward, opposite of the centrifugal reaction, and weaken from the center out.

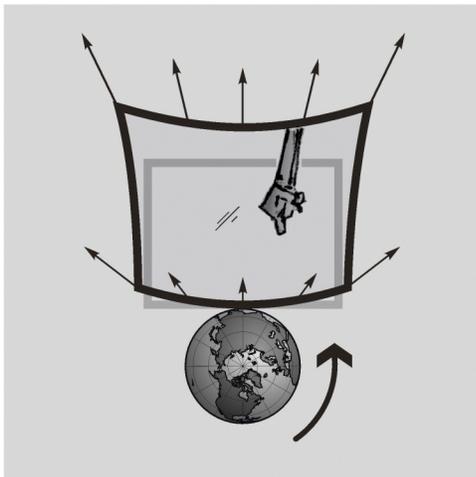
Gravity coalesces and increases inward, three-dimensionally. Centrifugal forces disperse and increase outward, two-dimensionally. Acceleration neither coalesces nor disperses and it acts uniformly in only one dimension. None are the same. This simple analysis clearly shows that rotation and acceleration do not create gravity, which again invalidates Einstein's equivalence principle.

**Figure 6**

(13.2 Centrifugal vi 8a)



1. ACCELERATION/BRAKING



2. CENTRIFUGAL REACTION



3. GRAVITY

## REFERENCE FRAME DISTORTION

To continue the argument, let's examine our reference frame's distortion conceptually when accelerating and rotating and compare the results to gravity's.

Imagine that our original crate is now theoretically no longer rigid but made out of some pliable rubber-like material that consistently stretches and compresses to some degree when subjected to external forces. The result indicated by the darker distorted crate that's superimposed over the original rectilinear crate that's lighter gray.

Diagram 1 shows acceleration/braking's one-dimensional stretching. If our crate was being pulled uniformly from the top, not from a single point as indicated, it'd remain rectilinear. If it was being pushed evenly from the bottom, it'd also remain rectilinear. But it'd be uniformly compressing.

Diagram 2 portrays the two-dimensional outward expanding diffusion of rotation's centrifugal reaction. Diagram 3 depicts the three-dimensional inward compressing of gravity's innate coalescing. It's impossible for them to produce the same distortion. This indicates that they are not at all experiencing the same force.

Try to imagine the result if you had a rotating reference frame that was subject to linear acceleration. Not only would its distortion from acceleration and rotation impossibly conflict with each other, but they'd also conflict with that of real gravity, which is always present for any quantity of mass, including that of subatomic particles.

They innately have mass and spin. So they have gravity and centrifugal reactions. And they're routinely accelerated. If equivalency were actually real, what would the physical effect be of commingling their compaction, diffusion, and stretching all at the same time?

This again easily establishes that acceleration and rotation do not and cannot create gravity fields. So Einstein's principle of equivalence is a fallacy.

**Figure 7**

(13.3 Distortion vi 8a)

## Relativistic Effects and Rotation

Still constrained by relativity's foundational premise, light's constancy, which is conceptually impossible but according to Einstein forces time dilation, length contraction, and the increasing mass of accelerating objects [52], he reasons that for any rotating body, like a flat circular disk similar in shape to a phonograph record or the base of a merry-go-round, its perimeter would contract while time's rate at its perimeter would slow. But the disk's radius would remain constant. And time's rate at its center would remain unchanged. But its rate would slow incrementally from its center out [53].

He contends that its fixed radius would yield a larger value for  $\pi$  (pi, the ratio of a circle's circumference to its diameter, which is always 3.14): "If, then, the observer first measures the circumference of the disc... then the diameter... on dividing the one by the other, he will not obtain as quotient the familiar number  $\pi = 3.14\dots$ , but a larger number [54]." Your initial reaction might be to question whether he's really serious. Maybe he's just toying with us, seeing if we're paying attention. Mine certainly was.

A disk with a circumference that contracted with rotation but somehow maintained a constant radius is of course conceptually impossible. It can't work. Also, it wouldn't produce a larger value for  $\pi$ . It'd be smaller. A circumference of 3.14 divided by a diameter of 1 equals 3.14. A smaller circumference of let's say 2.14 divided by a diameter that theoretically remained unchanged at 1 would equal 2.14.

So time's slower rate at its edge would cause an irresolvable conflict with light's unchanging velocity in the radial direction perpendicular to its tangent, or at any angle, where there'd be no or less contraction and motion. This would cause light to exceed 186,000mi/s in that direction.

Also because the disk's rotation progressively slows toward its center, light's tangential velocity at the edge would conflict with its tangential velocity at every other location on the disk. Or time's rate would have to increase correspondingly toward the disk's center to maintain light's fixed velocity.

Einstein actually acknowledges this. "Thus on our circular disc... a clock will go more quickly or less quickly, according to the position in which the clock is situated (at rest ) [55]."

But a single reference frame with multiple rates of time is conceptually impossible. He knows this: "Every reference-body (co-ordinate system) has its own particular time [56]." A reference frame with a different rate of time in different directions is just as unfeasible. But he refuses to address it. He recognizes the difficulty, "but I do not wish to go any further into this question [57]." He brushes the issue aside as if it's not pertinent but an unnecessary diversion.

These same conflicting conditions would apply to a rotating sphere. Every location between the equator and the poles is of the same reference frame. But there's no rotation at the poles. This would cause light's velocity to impossibly vary over the entire sphere while exceeding 186,000mi/s. Or time's rate would have to impossibly vary at every location. Neither is a viable option.

And if the sphere were our Earth, that varying rate of time would have to somehow be compounded with time's slowing from its orbital motion along with the orbital motion of our solar system in our galaxy and our galaxy's motion through the universe. Try imagining the consequences of all that.

## **Gravitational Redshift**

Einstein is generally credited with being the first to describe gravitational redshift. It is the displacement of the spectral lines of atoms or an object in a gravity field toward longer wavelengths in the direction of the red end of the electromagnetic spectrum. But Einstein's version is completely different from what's generally accepted.

The most common explanation begins with the assumption that a photon's escape from a massive body is impeded by gravity. If it's affected by gravity then it must have gravitational mass. A photon doesn't innately have mass.

But it's thought that its velocity gives it inertia. So it must have inertial mass. Then because of Einstein's "principle of equivalence," its inertial mass is gravitational mass. They're the same. That's how photons can be affected by gravity. (Note the reliance on his debunked "principle of equivalence.")

Since they have to travel at the speed of light (because light's velocity is presumed to be fixed), their impeded escape does not decrease their velocity. Instead, they lose energy that expresses as a decrease in light's frequency, which is a longer, redder wavelength [58]. Those explanations that accept light's varying velocity in gravity fields simply reason that as it emerges from a gravity well, it is its slower velocity that reduces or redshifts its frequency.

Even though Einstein realizes that light varies in gravity fields, the stronger the gravity the slower light's velocity, his gravitational redshift is still based on nonexistent relativistic time dilation that's produced by a body's rotation that would also have nonexistent centrifugal-created gravity. That fictitious gravity is then impossibly correlated with real natural, mass-created gravity through his trumped-up "principle of equivalence."

He "reasons" that since time for an observer with a, "clock at the edge of [a rotating] disk... goes at a rate permanently slower than that of [a] clock at the centre... [and because they're aware of] a force which acts outwards in a radial direction, and which would be interpreted as an effect of inertia (centrifugal force)... [and because] the observer believes in the general theory of relativity... The force acting on himself, and in fact all other bodies which are at rest relative to the disc, he regards the effect of a gravitational field [59]."

The observer's motion around the disk's circumference dilates their rate of time and because they're in a centrifugal-created gravity field this would establish a relationship between time and gravitational potential. Increasing rotation relativistically slows their time's rate while increasing their centrifugal-created gravity.

Then with his "principle of equivalence" that qualifies all gravity as the same, he equates centrifugal-created gravity with natural, mass-created gravity. But he also applies time's dilation created by centrifugal-created gravity's rotating motion to natural, mass-created gravity despite the fact that the prerequisite rotation necessary for time's dilation no longer exists. He just casually asserts without explanation that time's dilation, "will hold quite generally for [all] gravitational fields. Furthermore, we can regard an atom which is emitting spectral lines as a clock, so that the following statement will hold:

*"An atom absorbs or emits light of a frequency which is dependent on the potential of the gravitational field in which it is situated.*

"The frequency of an atom situated on the surface of a heavenly body will be somewhat less than the frequency of an atom of the same element which is situated in free space (or on the surface of a smaller celestial body)... Thus a displacement towards the red ought to take place for spectral lines produced at the surface of stars as compared with the spectral lines of the same element produced at the surface of the earth [60]."

No, none of this has been misquoted. He actually expects us to believe and accept that redshift corresponds to time's relativistic dilation caused by the motion of a rotating body that also has centrifugal-created gravity. But because of his "principle of equivalence," centrifugal-created gravity is the same as natural, mass-created gravity. So the relativistically derived time dilation of centrifugal-created gravity has to be applied to natural, mass-created gravity. Nice trick.

We should go over that again. Motion, including rotating motion, causes time dilation because light's velocity is fixed. The spectral lines of atoms can be regarded as a clock. Time's dilation shifts those spectral lines toward the red end of the spectrum.

A body's rotation causes both time dilation and centrifugal-created gravity. So a relationship exists between time's slowing, indicated by redshift, and centrifugal-created gravity. The faster the body's rotation, the more dilated its time, the farther redshifted its light, the stronger its centrifugal-created gravity.

Because of equivalence, rotation's centrifugal-created gravity and nonrotating, natural, mass-created gravity are the same thing. So rotation's centrifugal-created gravity's dilated rate of time, expressed as redshift, has to apply equally to nonrotating, natural, mass-created gravity. So higher redshifts indicate stronger nonrotating, natural, mass-created gravity.

It's difficult sometimes to rationally explain irrationality, to accurately convey nonsensical ideas and how ill-conceived they are. They're inherently hard to follow because they don't make sense. And in Einstein's case, no one wants to believe they're incoherent and fallacious. But the fabricated complexity and disqualifying absurdity of this particular logic chain that's based on delusive assumptions and correlations exemplify the convoluted, illusive reasoning and the manic, fanciful nature that permeates all of relativity.

But let's proceed anyway and try to put his version of gravitational redshift in proper context. First, as we previously covered, time doesn't really exist. It's not an actual property of the universe. Also, it's conceptually impossible for light's velocity to remain constant. It compounds with motion, and it's variable.

Einstein has already conceded light's variability in all gravity fields [61]. Its constancy can only occur outside of gravity fields. If its velocity cannot be fixed in gravity fields then any attempt to establish a relationship between redshift and the strength of a gravity field that's based on time's relativistic slowing due to light's constancy, in a gravitational field, is nonsensical.

So the relativistic foundation of his gravitational redshift subverts it from the start. If light's velocity is not fixed, rotating motion cannot cause nonexistent time to slow. And if there's no such thing as time then an atom's spectral lines cannot be regarded as a clock.

Considering spectral lines as a clock has no basis anyway. He deceptively asserts it as fact and declares that it's so. If time did actually exist and it could change with motion, there's no reason why its changing rate would have an effect on spectral lines, shifting them in one direction or the other.

The rotation of a celestial body or of a disk varies from zero at its poles or center to its maximum at its equator or edge. This means that its rotation-created gravity will vary accordingly over the entire body. With an infinite number of rotation-created gravities to choose from along with its associated redshifted light, how can it ever be rationally correlated with a singular, mass-created gravity that's the same for the entire body to establish a valid gravitational redshift?

But if a relationship does exist between the displacement in the spectral lines of an atom and its natural frequency, which is perfectly reasonable to infer, we could rationally theorize several ways that a celestial body might produce a red or blue shift in its light. The natural frequency of an atom would increase when subjected to stronger gravity, a field of decreased density. Its contraction would innately produce faster oscillation, which would tend to blue shift its light.

But it's possible that its spectra might still be redshifted if it were originating from a stronger gravity field. Light's velocity propagates slower in fields of decreased density. Also, any celestial body that was rotating faster due to its contraction would be induced with an increasing charge. This would slightly increase the mass of its atoms, causing an increase in its gravity and a slowing in its natural frequency. Both would produce a redshift.

These processes would give rise to higher redshifts for more condensed bodies. This would cause them to appear to be receding with a Doppler shift. But the actual distance between them measured from their centers would remain the same. (The Doppler effect is the change in light's frequency resulting from the relative motion between two objects [62].)

This offers a much more feasible explanation of the redshifted displacement of an atom's spectral lines than Einstein's contradictory assertion of nonexistent time's impossible relativistic slowing from a body's rotation that he irrationally contends creates a gravity field from its centrifugal force that he illusively correlates through contrived equivalence to natural, mass-created gravity.

A rotating mass does not create centrifugal gravity. As covered earlier in detail, it does not and cannot exist. So if it's nonexistent then no equivalence can be drawn between it and natural, mass-created gravity. If equivalency can't be drawn between centrifugal mass (or inertial mass) and gravitational mass then his "principle of equivalence" is a fallacy as well. But even if centrifugal gravity did exist and could be associated with dilated time, indicated by redshift, there's still no basis to infer that centrifugal gravity's redshift correlates to the strength of natural, mass-created gravity.

He never attempts to explain how that might work. He can't. The correlation cannot be rationally drawn. He again just declares that it's so. That doesn't make it reality. As if dealing three-card monte, what he does (maybe subconsciously, it's hard to say) is skillfully obfuscate redshift's cause and effect. He transfers it from rotation's relativistic time dilation to natural, mass-created gravity's strength, using its inferred association with centrifugal-created gravity as the translating intermediary. If it's not intentional misdirection, it's profound delusion.

Einstein never suggests that acceleration-created gravity would redshift an atom's spectral lines. If equivalence compels all gravity to be the same, it'd have to. The greater the acceleration, the stronger the gravity, the more relativistically redshifted they'd have to be. If this were actually true, it'd have significant consequences.

And what about gravitational time dilation? How could it ever be accurately determined for massive bodies that also had any of the other conflicting types of gravity fields like equivalency's acceleration-created or rotation-created gravity?

Or what if they had relativistic time dilation from linear acceleration or relativistically increasing mass from linear acceleration that increased their natural, mass-created gravity? We could never know how much time dilation to attribute to each type of gravity.

But if time actually did relativistically slow for moving objects and if an atom's spectral lines could actually be regarded as a clock then the light of any moving object, whose rate of motion remember is supposedly subjectively decided by each observer, would have to be redshifted as well. Take a moment to consider the implications of that.

But even beyond that, let's say acceleration-created gravity, rotation-created gravity, the relativistic effects of special relativity, and his or conventional gravitational redshift all existed and worked as theorized. We could never know the true gravitational redshift of any accelerating or rotating body.

In addition to their natural, mass-created gravity, they'd have increasing gravity from relativistically acquired mass from linear acceleration, or increasing gravity from equivalency's acceleration-created or rotation-created gravity. But we'd have no way of ever determining the source or sources of the gravity or how much gravity was originating from each. So the body's gravitational redshift would be meaningless.

The relativistic basis and delusive, metaphysical gyrations of his inferences mount to nothing more than a theoretical game of make-believe. None of it has any chance of ever actually manifesting in our real physical world of three actual dimensions.

Even so, Einstein still declares that, "If [it's discovered that] the displacement of spectral lines toward the red by the gravitational potential [gravitational redshift] does not exist, then the general theory of relativity will be untenable [63]." Of course it would. But it'd also mean special relativity would be untenable as well.

His gravitational redshift is based on relativistic effects. If it doesn't exist that'd have to mean that relativistic effects are unworkable. If that's true then special relativity would also have to be just as untenable as general relativity. But on the other hand, if his gravitational redshift was found to exist then both general and special relativity would have to be judged as tenable.

## **Cosmological Redshift**

If relativity was deemed tenable then cosmological redshift couldn't be originating solely from the universe's stretching. It'd also have to include Einstein's version of gravitational redshift. It'd also have to include any additional gravitational redshift from additional gravity from his relativistically created mass from linear acceleration, and additional gravitational redshift from equivalency's acceleration-created gravity and its rotation-created gravity.

Convention used to hold that cosmological redshift was produced by a Doppler shift due to the recessional velocity of galaxies from universal expansion. It's now more widely held that cosmological redshift is a consequence of space's stretching from the big bang's expansion that's displacing or lengthening light's wavelength toward the red [64].

But with all these other potential redshift sources, we'd have no way of ever knowing how much redshift to attribute to them or cosmological redshift. So we could never know the universe's rate of expansion, or even whether it was expanding. This would completely undermine our inference of an expanding big bang universe.

Einstein accepts that cosmological redshift from recessional velocity (or now stretching) originates from universal expansion [65]. Which means, redshift cannot be an indication of gravitational potential. Apparently, he doesn't realize that he's again cornered himself in a basic contradiction. This one completely nullifies his gravitational redshift that in turn completely invalidates relativity.

Our big bang-relativity cosmology is fundamentally self-conflicted. To preserve the big bang, we have to decide that Einstein's version of gravitational redshift is nonexistent, which would invalidate relativity. If we embrace his gravitational redshift, we then have no consistent redshift source. Inferring universal expansion, much less its rate, would be impossible.

So the entire big bang would collapse. We're forced to choose one or the other. Relativity and the big bang can't coexist. But we continue to ignore this crucial and obvious nullifying conflict.

But there's more. Conventional, nonrelativistic gravitational redshift can't be ignored. It has to be considered as well. So does gravitational redshift from light's slowing. Both are just as conflicted with cosmological redshift. Neither of them can coexist with it either.

And they pose an even greater threat. They're more rational and more difficult to discount, especially gravitational redshift from light's slowing. So the big bang is in even greater jeopardy. One or the other, gravitational redshift or cosmological redshift, still has to be chosen.

Remember though, conventional gravitational redshift is dependent on Einstein's "principle of equivalence," which we totally debunked. It's not legitimate. So it can be discounted. That leaves us with light's slowing in gravity fields as the singular source of gravitational redshift that threatens to undermine the big bang.

What's even more threatening, the big bang's accepted cosmological redshift from stretching directly conflicts with any other potential source of galactic redshift, i.e., Doppler effect, tired light, relativistic time dilation, the reduced frequency of atoms due to an induced charge from their motion, the Doppler shift from the recessional velocity of each galaxy's infalling material, and so on. As many as eight seem viable. There may be more. The Doppler redshift from the recessional velocity of the continuously coalescing infalling material at each galaxy due to gravity's runaway nature is the most rational.

If even one other galactic redshift source were found to be legitimate, we'd be facing the same difficulty. We could never know how much redshift to attribute to stretching and how much to the other source.

But even stretching itself poses a potential conflict. It innately produces recessional velocity. Recessional velocity has an associated redshift from its Doppler shift. So even if we discount all other potential redshift sources, we're still left with two types of redshift for every galaxy, one from stretching and the other from recessional velocity.

And what about the smaller number of galaxies that exhibit a blueshift? Are we to believe that the universe is contracting in the direction of those galaxies for some unknown reason? How is this question to be resolved?

## **Conclusion**

For anyone willing to take an objective look and reason it out, it's obvious that it's not possible for there to be unique masses qualified as inertial, centrifugal, or gravitational. There's only mass, the amount of material an object contains. When it's in motion, which includes acceleration/braking and rotation, it has inertia. When "at rest" in the gravity field of a larger body, as if its motion was being resisted by its surface, it has weight.

The inertial reactions of acceleration/braking and rotation cannot be qualified as the same as gravity's reactions, even in the least bit. If they're not the same, they cannot be interpreted as gravity fields. If "inertial mass," "centrifugal's inertial mass," and "gravitational mass" are nonexistent and if acceleration and rotation's inertial reactions are not the same as gravity's reactions then there can be no "law of the equality of inertia and gravitational mass" or its concocted twin "the principle of equivalence." They're false precepts.

Without his "principle of equivalence," Einstein's version of gravitational redshift, which is dependent on it, cannot work. If his gravitational redshift is unworkable then, "the general theory of relativity will be untenable," even according to him [66].

But he's already invalidated his version of gravitational redshift, and relativity in its entirety, with his (correct) conclusion that light's velocity varies in gravity fields. Its velocity is not fixed [67]. And it can't be fixed anywhere. There's no place where gravity fields don't exist.

His gravitational redshift is dependent on light's constancy [68]. So it has no chance of ever working. And relativity's underlying premise is light's constancy. If it's gone, none of it works either.

If his "principle of equivalence" and light's constancy were real, then his version of gravitational redshift would be valid. But if it was, its redshift would conflict with cosmological redshift. There'd be two sources of galactic redshift. So we'd never be able to infer a galaxy's recessional velocity. So we could never know the universe's rate of expansion, or whether it even was expanding.

This creates an unresolvable dilemma. Choosing to believe Einstein's version of gravitational redshift invalidates the big bang. Choosing to believe the big bang means, we have to discount his gravitational redshift. If we do that, then we're nullifying relativity. They can't coexist.

If it's discovered that even one other version of gravitational redshift or cosmological redshift is found to be valid, there are many viable theories, this would create a conflict with the big bang's redshift that's presumed to be from recessional velocity or space's stretching. So we'd be back at the same place. We could never know how much redshift to distribute to what. So we could never know the universe's rate of expansion or if it was expanding.

The only way to preserve the big bang would be to discount all other possible versions of gravitational and cosmological redshift. But then we're still left with having to contend with all of its other contradictory and unresolvable absurdities. Its inconceivable and physically impossible two-dimensional three-dimensional geometry being the most problematic [69].

Any way you look at it, relativity and the big bang are both doomed one way or another by their invalidating conflicts.

## Declarations

The author certifies that he did not receive any funding, grants, or any type of support from any individual, institutions, or organization in the connection with the study or preparation of this work. The author further certifies that he does not have any financial or competing interests in connection with this work or ties of any kind to any individual or organization that might.

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