INERTIAL PROPULSION WITHOUT A PROPELLANT

Based Upon The Ether

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by Ramsey

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Inertial Propulsion Based Upon the Ether

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AUTHOR'S NOTE:

There are many links throughout this book to illustrate the theories posed. The reader may find these links easier to access by reading the epub version on the website:
https://www.inertialpropulsionbyramsey.com/

Notice to the reader. There are numerous references to websites in each chapter of this book. However, for a variety of reasons, over time URLs become unavailable.

Nevertheless, they still can be accessed at the website: Wayback Machine, an internet archive [*https://archive.org/*]. Please refer to that site if necessary.

ABSTRACT

The intention of this publication is to propose a hypothetical reactionless drive spacecraft (devoid of a propellant) employing differential centrifugal forces as well as counteracting three-dimensional mirror-image symmetry. Nevertheless, bearing in mind the modern-day laws of physics (Newton and Einstein), it is assumed by most experts that this is not possible, for it is posited that a closed system cannot exert a net force upon itself.

Contrarily, there are many experiments/inventors who have already proven, moreover, demonstrated inertial propulsion (e.g., Dean Drive/Thornson Inertial Propulsion Drive). Furthermore, given the circumstance that there is no underlying scientific supportive theory, those results, generally but not exclusively, have been ignored or debunked by the general scientific establishment.

However, by employing the existence of the ether, the author posits an alternative theory that gives explanation to those experiments/demonstrations. With hope and assuming this new premise (the ether) is eventually validated, the outcome will lead to the general acceptance by the physics community—that one can utilize reactionless propulsion to build a functioning spacecraft. Therefore, at that time, there will be a strong impetus to build such devices (e.g., NASA/Elon Musk).

PROLOGUE

Most physicists/scientists presuppose that there is no ether (SRT/GRT). It is my intent to show that there is indeed an ether explicated by the following discussion/videos relevant to the idea/notion of inertial/ reactionless propulsion.

Inertial propulsion without a propellant has been claimed by many inventers. Nevertheless, since this concept violates the irrefutable laws of physics, it is assumed by most present-day scientists that this is not even possible. The reasoning is as follows: Modern-day physics hypothecates there is no true centrifugal force. It is only a fictitious force. Because of this assumption, inertial propulsion cannot exist. In essence, a closed system cannot exert a net force upon itself. On the other hand, if you view the videos at the following websites, you will note it is obviously not a fictitious force, but rather a real force.

https://bit.ly/3iXZBg7
https://bit.ly/3v2ojRX
https://bit.ly/3oMADVx



Now, regarding this article, the author intends to show in the latter half how one can utilize that just observed in the videos to then construct a reactionless drive spacecraft. If so, then the classic laws of physics regarding the fictitious centrifugal forces are in erratum.

For further clarification and illumination, visualize the translational motion of the devices you have just witnessed in the videos as just presented, moreover, specifically in only one axis.

Notice, the devices cannot move in the other two axes, due to the wheels-blocking effect, and the Earth's surface/gravity, again a blocking effect—therefore, leaving the original one-axis motion on the Earth's surface intact.

Now instead, envision being positioned in outer space, whereby with the use of multiple similar devices there is then employed counteracting three-dimensional mirror image anti-symmetry (two separate platforms with counteracting symmetry in three dimensions). As a result, this function leaves the original one axis translational motion intact but negates all motion in the other two axes somewhat analogous to the above website videos. This is essentially inertial propulsion without a propellant. If so, then the classic laws of physics regarding the fictitious centrifugal force is in erratum—it is a real force. Again, this article with additional detailed explanations, as well as three-dimensional illustrations/projections, can be found at the website *inertialpropulsionbyramsey.com*.

See Division B of this book.

In addition, and more significantly, the author will hypothesize, by using the concept of the ether, exactly how one can give explanation to a true centrifugal force. See Division A of this book. Hopefully, the reader will then have the impetus to read, moreover, evaluate the paper titled *The Ether*, which can be found at the website *theetherbyramsey.com*. This site explains relativity as a function of the ether, an alternative to Einstein's relativity assumptions (no ether).

INTRODUCTION

Einstein's Special Relativity Theory (SRT) assumes the absence of the ether. So, by inference then, inertial mass is the intrinsic property of the object, as a response to its acceleration by force (F=ma). In contrast, as posited by the book titled *The Ether by Ramsey*, if it exists (ether), it is the object's acceleration/deceleration by force (F=ma) →*relative to the ether itself* ← which then produces inertia as well as momentum. They are essentially two inverse aspects of the same function.

The primary reason the author believes in the ether is this: Recently physicists have established and confirmed, the reality of the God particle, another name for the Higgs boson which is a quantum (part of) of the Higgs field. Fundamentally, the Higgs field permeates all the space of the universe; this includes the interspace of all of matter. Fundamentally it is what gives rise to inertial mass. Therefore, the presumed empty space of the universe is in fact something →*rather than nothing* ←. In the author's opinion, the Higgs field is just another name for the ether.

Chapter 1 of *The Ether by Ramsey* explains in detail, how the Higgs field (that which causes inertial mass/rate of time) is synonymous with the traditional meaning and definition of the word ether, the preferred frame for the velocity of light. Nonetheless, for the benefit of the average reader, moreover, to simplify this article and for future reference, the word ether will generally be used, rather than the term Higgs field.

Given below is the author's definition of inertia and momentum as an effect of the ether.

- Inertia = force (F=ma) accelerating matter, relative to the ether (at rest), therefore generating an →*external resistance force of inertia* ← (from that ether) as a response to that acceleration = compaction of that structure.

- Momentum = force (F=ma) exerted on matter, already in inertial motion, however, in this case producing deceleration of that object relative to the ether (at rest) and therefore, generating an →*external resistance force of momentum* ← (from the ether) as a response to that deceleration = compaction of that structure.
- Physical matter at constant translational velocity, vis-á-vis the ether, does not interact with the ether (at rest), so there is no change in its velocity.

Contents Here is the outline of the contents to be presented in this publication. It is divided into two major divisions: A and B as well as numerous subsections.

Division A compares the classic concepts of inertia and momentum from the frame of Newton and Einstein (no ether) versus a reference frame presuming the reality of the ether. Division A is separated into six subsections.

1. The classic theory (Newton) of both translational inertia (acceleration) and momentum (deceleration) are illustrated and defined from the frame of an object's own intrinsic physical properties (no ether). This classically is referred to as the "property of the object."
2. Both translational inertia (acceleration) and momentum (deceleration) of an object are illustrated and defined, from the frame of the ether.
3. The classic theory of rotation inertia and rotational momentum are presented (Newton = no ether).
4. Both rotational inertia and momentum as an effect of the ether are presented.
5. The law of the conservation of angular momentum of a rotating wheel is illustrated from two different reference frames (the classic theory versus the ether theory).
6. The strength of a true (not fictitious) centrifugal force (a product of the ether) is explained partly based upon the length of the radius of a rotating wheel.

Division B uses the concepts provided in Division A to explain how it is possible to design and construct a reactionless drive spacecraft. Division B is separated into two subsections.

1. Six YouTube sites are referenced which, to some extent, demonstrate inertial propulsion.
2. The author hypothecates two ideas for the design and construction of spacecraft, both of which exploit differential centrifugal forces along with counteracting three-dimensional mirror-image symmetry to then explain how one can propel those devices by employing, (as a function of the ether) a reactionless drive propulsion system (Centrifugal Inertial Drive = C.I.D).

DIVISION A 1. Translational inertia (acceleration) and translational momentum (deceleration) are illustrated and defined from the frame of an object's own intrinsic physical properties (Newton).

The three laws of Newton:

A. For every action, there is an equal and opposite reaction.
B. Every object in a state of uniform motion will remain in that state of motion unless an external force acts on it.
C. Force equals mass times acceleration.

Einstein believed that there was no ether. If this is so, then the inertial mass of an object (inertia and momentum) must by exclusion be a function of its own intrinsic physical properties (its atoms). What other options are there? To be more specific, according to the laws of modern physics, there is no →*external opposite force*← as a response to an object's acceleration/deceleration by F=ma. Rather, there is only →*intrinsic atom resistance within that object (property of the object)*← as a reaction to that acceleration/deceleration.

For that classic definition of →*inertia*← see Figure 1 and the following diagram.

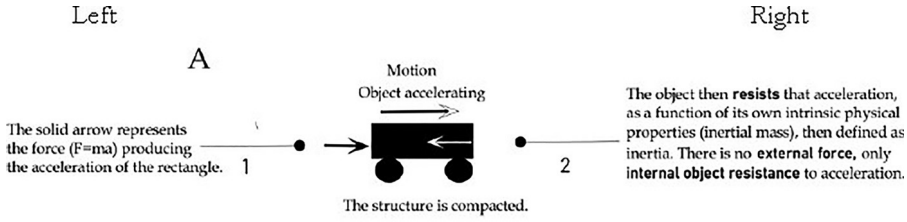


Figure 1

A is translational inertia without an ether.

- (Figure 1, A-1 left) There is a force (F=ma) which accelerates the solid rectangle/object: See horizontal → *solid* ← arrow pointing to the right.
- (Figure 1, A-2 right) The rectangle as a function of its own intrinsic physical properties (its atoms) then resists that acceleration. See horizontal →*white*← arrow located within the object pointing to the left. This is defined as inertia. Be aware, internal object resistance is not an opposite external force; rather it is only an effect of the →*property of the object*←.
- (Figure 1, A-1 and A-2) The structure is then compacted as a function of both horizontal arrows oriented in opposite directions.
- The resistance, as a function of the property of the object, does not prevent its acceleration/movement from the direction of F=ma. Nevertheless, there is still a resistance to that motion.

For the classic definition of →*momentum*← see Figure 2 and the following discussions.

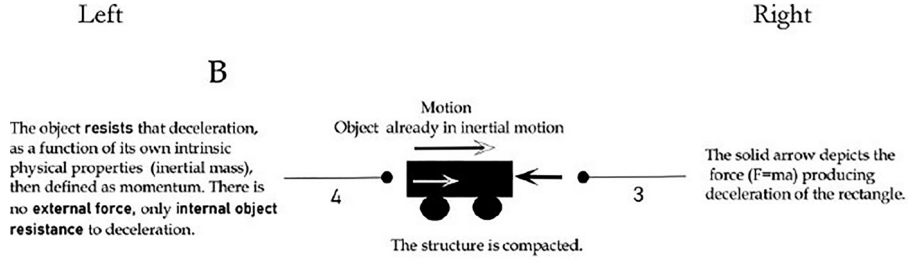


Figure 2

B is translational momentum without an ether.

- (Figure 2, B-3 right) There is a force (F=ma) which decelerates the object/rectangle already in inertial motion. See →*solid*← horizontal arrow pointing to the left.
- (Figure 2, B-4 left) The rectangle as a function of its own intrinsic physical properties (its atoms) then resists that deceleration in the same direction as the motion of the object. See the horizontal →*white*← arrow located within the object pointing to the right. This is defined as momentum. Observe again, there is internal object resistance as a property of the object but not an external force.
- The resistance as a property of the object does not prevent the deceleration as an effect of F=ma. There is still deceleration, nonetheless a resistance to that deceleration.
- (Figure 2, B-3 and B-4) The structure is then compacted as a function of both horizontal arrows oriented in opposing directions.

In summary, regarding the modern interpretation of Newton's three laws, there is no →*external*← resistance force from the ether; rather, there is only →*internal atom*← resistance derived from the "property of the object."

2. Translational inertia (acceleration) and translational momentum (deceleration) of an object are illustrated and defined from the frame of the ether The following account is not the classical theory of translational inertia and momentum as commonly taught by modern-day

physicists/scientists. The ensuing descriptions comprise an alternative explanation proposed by the author but now as a function of the ether.

- Matter at a constant velocity relative to the ether (at rest) does not interact with that ether, accordingly there is no change in its velocity.
- Matter accelerated by force (F =ma) relative to the ether (at rest) → *produces an external resistance force of inertia* ← (derived from that ether/Higgs field) as a response to that acceleration, furthermore, oriented in the opposite direction of the object's motion/acceleration.

From another perspective, the ether of the universe is all-pervasive; this includes the inner space of matter, nevertheless, still located external to its atoms. This external ethereal resistance force of →*inertia*← is then applied individually to all the atoms that make up that object.

The ether resists the acceleration, but it does not prevent the acceleration. This is somewhat, and the author emphasizes somewhat, analogous to a boat being propelled by force in water. Water resists the boat's motion (F=ma); however, it does not prevent that motion. Yet, there is a difference: Water resists both the velocity and acceleration of the boat, whereas the ether only resists the acceleration of the object but not its velocity.

- Matter already in inertial motion, decelerated by force (F=ma) relative to the ether (at rest) then generates an →*external resistance force of momentum* ← (derived from that ether) as a response to that deceleration but now in the same direction as the object's motion. Refer to Figure 2 for further clarification.

Again, alternatively stated, the ether of the universe is all-pervasive; this includes the inner space of matter, nonetheless, still located externally to its atoms. This external ethereal resistance force of →*momentum*← is then applied individually to all the atoms that make up that structure.

For a definition of →*inertia*← as an **effect of the ether**, refer to Figure 3 and the following discussion.

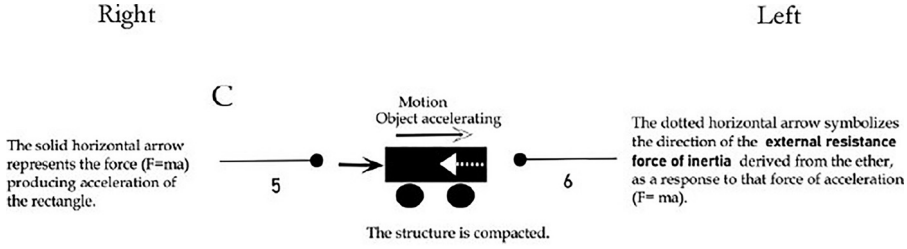


Figure 3

C is translational inertia with an ether.

- (Figure 3, C-5 left) There is a force (F=ma) that accelerates the solid object/rectangle. Refer to →*horizontal solid*← arrow pointing to the right.
- (Figure 3, C-6 right) The ether (Higgs field) located within the inner space of the rectangle resists that acceleration →*by an* ***external*** *resistance force of inertia from the ether, within the object, then applied to all of its atoms).* Refer to →*horizontal dotted*← arrow pointing to the left.
- The ether does not prevent/stop the acceleration in the direction of F=ma, but it does resist that motion.
- Again, this is somewhat, and the author emphasizes somewhat, analogous to a boat being propelled by force in water. Water resists the boat's motion (F = ma); however, it does not prevent that motion. Yet, there is a difference: Water resists both the velocity and acceleration of the boat, whereas the ether only resists the acceleration of the object but not its velocity.
- (Figure 3, C-5 and C-6) The structure is then compacted as a function of both horizontal arrows oriented in opposing directions.

For a definition of →*momentum*← **as an effect of the ether**, refer to Figure 4 and the following dialogues.

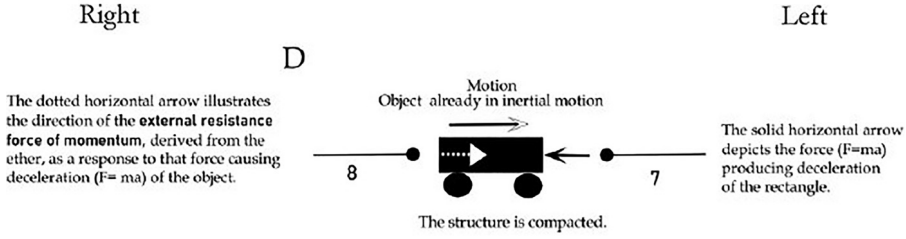


Figure 4

D is translational momentum with an ether.

- (Figure 4, D-7 right) There is a force (F=ma) that decelerates the solid object/rectangle already in inertial motion. Refer to → *horizontal solid* ← arrow pointing to the left.
- (Figure 4, D-8 left) The ether (Higgs field) located within the inner space of the rectangle resists that deceleration by an →***external*** *resistance force of momentum from the ether, within the object, then applied to all of its atoms*←. Refer to →*horizontal dotted*← arrow pointing to the right.
- The ether does not stop or prevent the rectangle's deceleration in the direction of F=ma, but it does resist that motion.
- (Figure 4, D-7 and D-8) The structure is then compacted as a function of both horizontal arrows oriented in opposing directions.

If the acceleration and deceleration are the same, then the external resistance forces from the ether are identical (the compaction is the same). Refer to the horizontal arrows in figures 3 and 4. Observe: They are pointing in opposite directions. And so, inertia and momentum are inverse functions of the same thing: a relative change in velocity (whether increasing or decreasing) with respect to the ether at rest.

In summary, presuming the ether exists, it is not the →*property of the object*← that produces inertia and momentum. Rather both are a function of → *external ethereal resistant forces* ←, as a response to the object's acceleration/deceleration by force (F=ma). Compare figures 1

and 2 (intrinsic object (atom) resistance) with figures 2 and 3 (external resistance force derived from the ether).

Third: **Rotational inertia and rotational momentum the classical theory (no ether)** The modern laws of physics presuppose no ether. Therefore, by logic, inertia and momentum cannot be a function of what does not exist—rather, both are related to the intrinsic physical "property of the object." Now refer to Figure 5 as illustrated below.

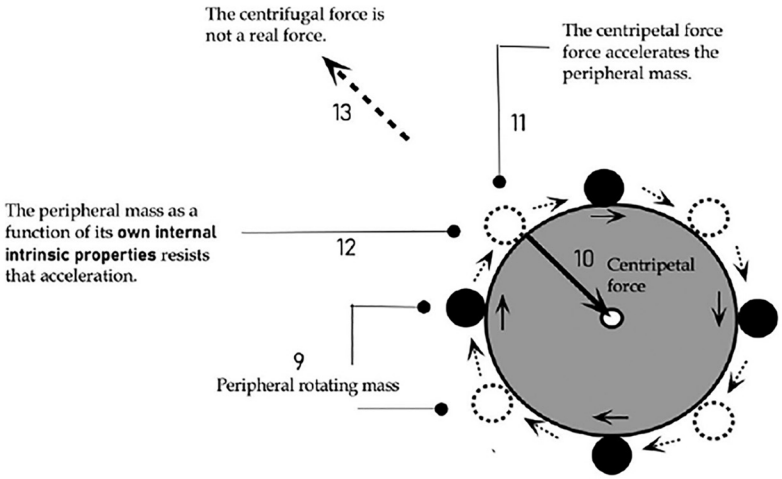


Figure 5

Fictitious centrifugal force without an ether.

- (Figure 5, #9) The solid black and dotted circles represent the attached peripheral rotating masses.
- (Figure 5, #10 and #11) The centripetal force (F=ma) accelerates the attached peripheral mass towards the pivot.
- (Figure 5, #12) The rotating masses as a function of their own intrinsic physical properties (atoms) resist that centripetal acceleration (property of the object). There is no external opposite force; there is only internal object resistance to the centripetal force.

- (Figure 5, #13) The centripetal force is only an apparent force and not real. See below.
  - Centrifugal force, a **fictitious force**, peculiar to a particle moving on a circular path, that has the same magnitude and dimensions as the force that keeps the particle on its circular path (the centripetal force) but points in the opposite direction. (*Encyclopedia Britannica*)
  - In the case of a rotating system, the centripetal force pulls the mass inward to follow a curved path, while the mass appears to push outward due to its inertia. In each of these cases, though, there is only one real force being applied, while the other (centrifugal) is only an **apparent force.** What Are Centrifugal & Centripetal Forces? | Live Science
- Presuming no friction, the wheel will rotate in infinitum.

In summary, according to classic laws of physics, there is no centrifugal force, only an apparent force not a genuine force.

Fourth: Rotational inertia and rotational momentum as a function of the ether are illustrated and defined The following account is not the classical concept of rotational physics as commonly taught by modern-day physicists/scientists. The ensuing description is an alternate explanation, hypothecated by the author, regarding rotational physics →*as a function of the ether/Higgs field*←.

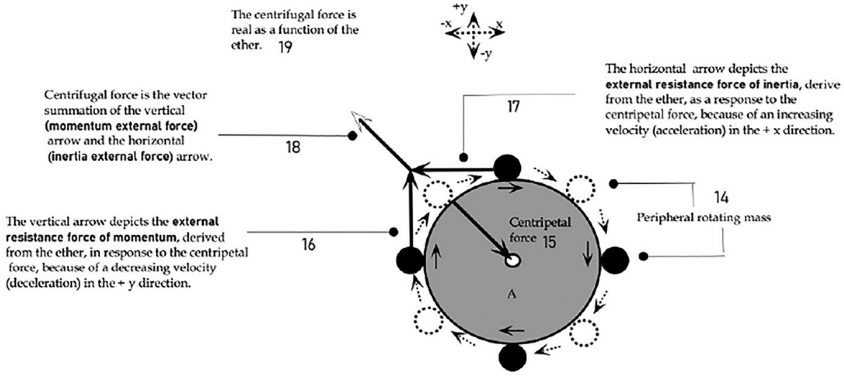


Figure 6

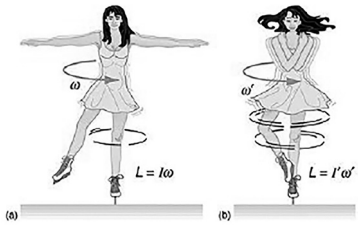
True centrifugal force as a function an ether.

- (Figure 6, #14) The solid black and dotted circles depict the attached peripheral rotating masses.
- (Figure 6, #15) The centripetal force (F =ma) accelerates the rotating mass directly towards the pivot.
- (Figure 6, #16) This centripetal force produces →*deceleration*← of the rotating mass, relative to the ether, in the +y direction, therefore creating an external force of →*momentum*← in the +y direction (derived from the ether/Higgs field). For the latter, see the solid vertical arrow (16) pointing towards +y.
- (Figure 6, #17) At the exact same time, the centripetal force produces →*acceleration*←, of the rotating mass, relative to the ether, in the +x direction, therefore, creating an external force of →*inertia*← in the –x direction (derived from the ether/Higgs field). For the latter, see the solid horizontal arrow (17) pointing towards –x.
- (Figure 6, #18) Be cognizant that the vector sum of the two external ethereal forces is the centrifugal force which is oriented in the opposite direction compared to the centripetal force. Note, arrow #18 and its direction which is opposite that of the centrifugal force.
- (Figure 6, #19) What all this means is that the centrifugal force is, in fact, real; not fictitious or only apparent as postulated by Newtonian mechanics Observe in the illustration, the continuous →*loss*← of angular velocity in the +y direction is equal to the continuous →*gain*← in velocity in the +y direction, so there is no change in the overall angular velocity (assume no friction). Accordingly, absent an outside torque or friction, the wheel will continually rotate ad infinitum.

To summarize, according to modern-day classic physics, there is no centrifugal force only an apparent—not a genuine—force. Then again, presuming the ether's existence, there is, in fact, a true physical centrifugal force.

Fifth: The conservation of angular momentum of a rotating wheel vis-à-vis different reference frames: the classic theory versus the ether theory A spinning ice skater is a common example of conservation of

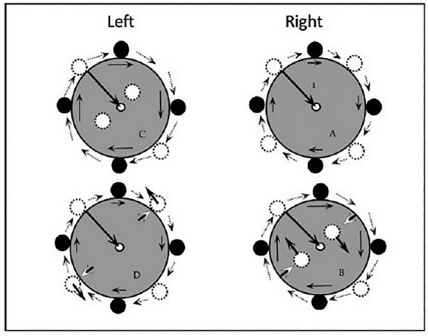
angular momentum. When the skater starts spinning with hands outstretched, the angular velocity is low, but the spinning becomes very fast as the hands are pulled in. What happens is that as the moment of inertia decreases, the angular velocity increases, so that the angular momentum is conserved.



(OpenStax College - Angular Momentum and Its Conservation (Fair Use) http://cnx.org/content/m42182/1.5/)
Figure 7

The purpose of the following dialogue is to explain this phenomenon, first from the frame of classic physics and, subsequently, to explicate the same phenomenon from the frame of the ether. However, instead of a twirling ice skater, imagine a rotating wheel associated with numerous attached peripheral masses, two of which can symmetrically move centrally towards the pivot and vice versa, to some extent analogous to the ice skater example just illustrated.

First, as illustrated below, is the classic theory of the conservation of momentum vis-à-vis a rotating wheel (no ether).



The Classic Theory *Figure 8*

Conservation of angular momentum without an ether.

- The hollow dotted circles and the solid black circles characterize the attached peripheral masses.
- The larger gray circles depict the wheel with the attached peripheral masses.
- The solid straight arrows located at the periphery of the wheels portray the rotational direction of the wheels clockwise.
- The dotted arrows located outside the wheel indicate the direction of motion of the attached peripheral masses rotating in synchrony clockwise along with the wheels.
- The single straight solid arrow pointing to the pivot represents the centripetal force.
- The small hollow-tipped white arrows pointing away from or toward the pivot portray the symmetrical movement of two of the peripheral masses, ether towards the pivot or away from the pivot.

The following description is from the frame of only the rotating wheel, and generally, but not exclusively, not from the frame of the rotating masses.

The left images (A and B) illustrate what occurs when two of the peripheral masses are symmetrically transferred → *by force* ← centrally towards the pivot—the wheel's rotational rate then increases. The reasoning is as follows.

Angular momentum without an ether.

- The angular velocity of the peripheral masses (A), when located at the circle's circumference, is greater compared to when positioned centrally towards the pivot (B).
- Therefore, when the two peripheral masses are symmetrically transferred → *by force* ← towards the pivot (B) a → *torque of momentum (from the masses)* ← is then exerted on the wheel, (because their angular velocity is greater compared to the wheel' s angular velocity), thus producing an increased rotational rate.

→ *Observe, at the exact same time, there is a reciprocal force (F=ma) derived from the rotating wheel exerted on two masses causing their deceleration. For simplicity of illustration, this function is not shown in the above figure* ←.

The two images to the right (C and D) depict what happens when the two central masses are → allowed ← to symmetrically move towards the wheel's circumference; the wheel's rotational rate then decreases. The reasoning is as follows.

Angular inertia without an ether.

- The angular velocity of the central masses (C) when located towards the pivot is less compared to when they are positioned at the circle's circumference (D).
- Therefore, when the two central masses are symmetrically → *allowed* ← to move towards the wheel's circumference (D) a → *torque of inertia (from the masses)* ← is then exerted on the wheel, (because their angular velocity is less compared to the wheel's angular velocity) thus producing a decreased rotational rate.

→ *Observe, at the exact same time, there is a reciprocal force (F=ma) derived from the rotating wheel exerted on two masses causing their acceleration. For simplicity of illustration, this function is not shown in the above figure* ←.

The Ether Theory At this time, the same law of the conservation of momentum of a rotating wheel is explained but now from the frame of the ether. Again, bear in mind, all that deliberated below is from the reference frame of only the rotating wheel, and generally but not exclusively, not from the frame of the attached rotating masses.

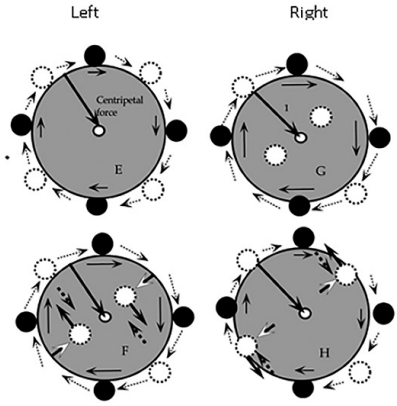


Figure 9

Conservation of angular momentum with an ether.

- The hollow dotted circles and the solid black circles characterize the attached peripheral masses.
- The larger gray circles depict the wheels and their attached peripheral masses.
- The solid straight arrows located at the periphery of the wheels portray the direction of the wheels rotating clockwise.
- The dotted arrows located outside the wheels indicate the motion of the attached peripheral masses rotating clockwise in synchrony along with the rotating wheels.
- The single solid arrow pointing to the pivot represents the centripetal force.
- The small hollow-tipped white arrows pointing away from or toward the circumference of the wheels represent the symmetrical movement of two of the peripheral masses' ether inwards towards the pivot or outwards away from the pivot.

The left images (E and F) illustrate what occurs when two of the peripheral masses are symmetrically transferred → *by force* ← towards the pivot—the wheel's rotational rate then increases. The reasoning is as follows.

Angular momentum with an ether.

- The angular velocity of the peripheral masses (E) when located at the wheel's circumference is greater compared to when they are positioned centrally towards the pivot (F).
- Therefore, when the peripheral masses are symmetrically transferred →*by force*← towards the pivot (F), then a torque (from the masses) is exerted upon the wheel (because their angular velocity is greater compared to the wheel's angular velocity) thus producing an increased rotational rate (acceleration). See solid arrows.
- At the same time, the ether (Higgs Field) then resists the wheel's acceleration by an external resistance force of inertia (derived from the ether). The ether does not prevent that acceleration, but it does resist it by an external force. See dotted arrows.
- → *Take note, again simultaneously, there is a reciprocal force (F=ma) derived from the rotating wheel, exerted on two masses causing their deceleration. In turn, as a response to that deceleration, this effect produces an external resistance force of momentum (from the ether) in opposition to the decelerations. For simplicity of illustration, this function is not shown in the above figure* ←.

The two images to the right (G and H) depict what happens when the two central masses are → allowed ← to symmetrically move directly towards the wheel's circumference—the wheel's rotational rate then decreases. The reasoning is as follows.

Angular inertia with an ether.

- The angular velocity of the two central masses (G) when located centrally is less compared to when they are positioned at the wheel's circumference (H).
- Therefore, when the two central masses are symmetrically → *allowed*← to move directly towards the wheel's circumference (H) then a torque (*from the masses*) is exerted on the wheel (because their angular velocity is less compared to the wheel's angular velocity), generating a decreased rotational rate. See solid arrow.

- At the same time, the ether (Higgs Field) then resists the wheel's deceleration by an external resistance force of momentum. The ether does not prevent that deceleration, but it does resist it by an external force. See dotted arrows.
- → *Take note, also simultaneously, there is a reciprocal force (F=ma) derived from the rotating wheel exerted on two masses causing their acceleration. In turn, as a response to that acceleration, this effect produces an external resistance force of inertia (from the ether) in opposition to the accelerations. For simplicity of illustration, this function is not shown in the above figure* ←.

In summary, this subsection is intended to be a mental exercise to help the reader perceive/visualize the concepts or rotational inertia and rotational momentum from two different perspectives—the classical theory vs. the ether theory.

Sixth: The strength of a true (not fictitious) centrifugal force (a product of the ether) is explained partly based upon the length of the radius of a rotating wheel.

Now, please see Figure 10 as illustrated below.

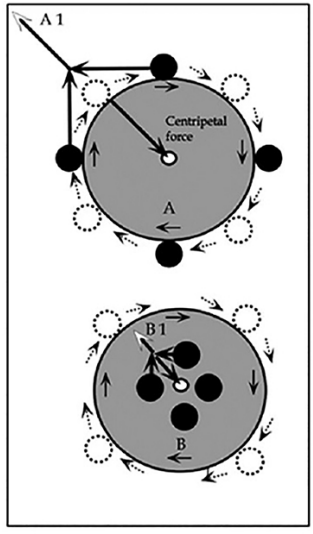


Figure 10

Centrifugal force

- Presume the presence of the ether, therefore, a real centrifugal force.
- Assume wheel A and wheel B both possess the same rotational rate.
- The black circular masses of wheel A are located at the circumference whereas with B more towards the pivot as shown.
- Therefore, the moment of inertia of the black masses is greater for A compared to B.
- A1 and B1 represent the centrifugal forces of their respective wheels A and B.
- The arrow pointed at the pivot of A and B is the centripetal force.
- Given the assumptions just presented, then both the real centripetal force and the real centrifugal force → *exerted on the black masses* ← are greater for A1 compared to B1.
- This last assumption is obvious to the average individual, for without a background in physics most individuals intuitively presume there is a real centrifugal force.
- Then again, classic modern theory posits there is only a centripetal force, moreover, the centrifugal force is fictitious and not real. However, as shown in this article, if there is indeed the ether, there is also undeniably a centrifugal force. It is not fictitious; it is real.

Succinctly, all of that which is illustrated and deliberated above presumes the ether exists, as hypothecated by the book titled *The Ether by Ramsey*. Consequently, there also is a real centrifugal force, not an apparent or fictitious force. For that reason, the real centrifugal force exerted on a mass (object) is greater when it is located at the periphery of a rotating wheel compared to when positioned towards its center, assuming equal rotational rates for both scenarios.