

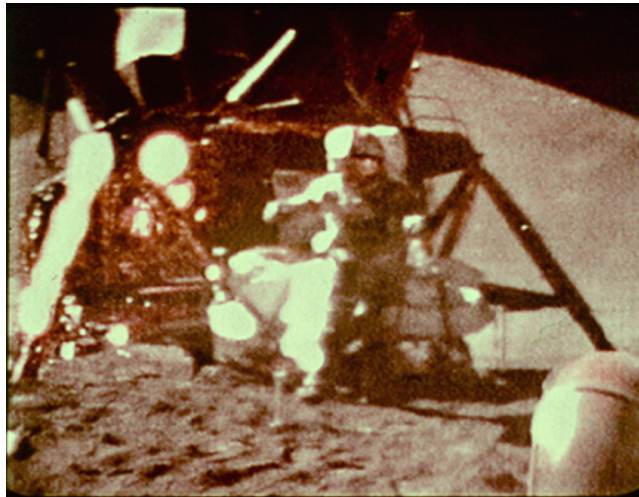
## The Refutation of Gravitationa Attraction

地心引力不存在的證明

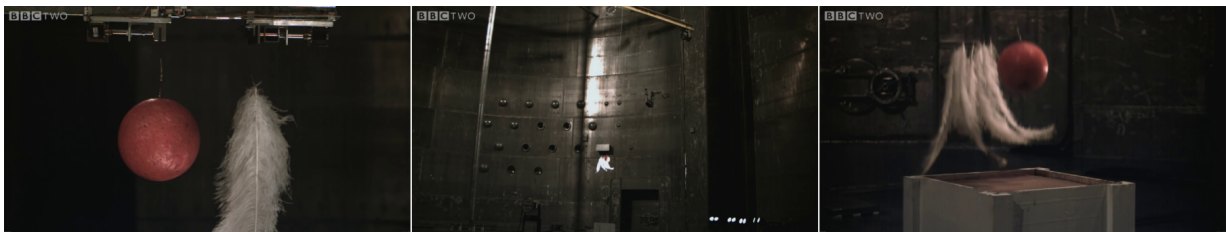
Gravity 是地心向力, 不是引力

Why Gravity Does Not Pull

Cres Huang



Hammer Feather Drop by David Scott, Apollo 15



NASA's vacuum chamber - Human Universe Episode 4 Preview - BBC Two

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## Abstract

All falling body experiments show one overlooked fact,

*gravitational acceleration is independent of mass, shape, size, surface, and distance.*

Contrarily,

*attracting acceleration is dependent on mass, shape, size, surface, and distance.*

Therefore,

***"gravity is not attraction."***

Certainly, gravity as any force, is dependent of mass, however, gravitational acceleration is not. Shape, size, and surface are functions of mass and distance, gravitational acceleration would have to be independent of mass and distance, isn't it?

We know there were variables in the Moon. Such as radiations, charge particles, temperature, magnetic fields. Also Scott's body mass and motion, radio transmissions, static electricities on his gloves, spacesuit, hammer, feather, and unknown variables. None of the above had altered the fall in any significance. The only significant force acted upon hammer and the feather is gravity.

Galileo's ingenious inclined planes showed the gravitational acceleration is dependent on time, times-squared law, not distance. It would remain uniform regardless of the distance to the center of the Earth. All other falling body experiments clearly shown the independence of gravitational acceleration and it's mass and distribution of it's mass, *i.e.* shape, size, surface, and distance.

On the other hand, the easiest attraction force most, if not all, of us have played is the magnets. Soft magnetic putty shown by YouTube user Steve Bartlett is an excellent slow motion of magnetic attraction. It has clearly showed that the magnetic attraction is dependent of mass, size, shape, surface and distance. Nevertheless, unless there is perfectly balanced count-acting force, it is impossible to keep all attracting objects to maintain their relative positions at distance.

We all feel this force of compression. All elements are moving toward a common focus in uniform acceleration. Only one momentum can build such one-way concentrative potential, head-on congregation from gentle pairing to high speed collision. As any force, gravity can not exist without mass. It is built by mass carrying momentum in the process of growing body. It can be started by electromagnetic attraction-repelling or disturbance in the environment. The coalition coalesces structure, increases it size and binding force. All joined elements share this center aiming potential, gravity. Objects moved to minimum contact field, *e.g.* above the atmosphere, would lost the strength of their concentrative potential and experience micro gravity or weightlessness. It is a push, squeeze, or compression; neither attraction nor pull.

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# 1 Introduction

We all feel this intimate force. However, it is somehow mystified. Current theory considers gravity is a natural phenomenon by which physical bodies attract with a force proportional to their mass. By current theory, gravity can be described as:

- A constant distance-reaching attracting force among masses.
- It is proportional to the product of masses.
- It is inversely proportional to the square of the distance.

However, this tug-of-war without a rope concept of gravity raised many contradictions. If the gravitational attraction of the Sun could reach Neptune and far beyond to the edge of the Solar System, how could force of such magnitude be so weak comparing to other forces? We all feel the contact force of compression and weight of gravity, how could it be so illusive that we cannot replicate and measure it's attraction? On the other hand, electromagnetic forces is easily replicated and measured. Why it can overpower gravity, yet of such short reach?

Here is falling body experiments done on the Moon by David Scott in Apollo 15 mission [7], Figure: 1; and NASA's vacuum chamber on Earth[1], Figure: 2.

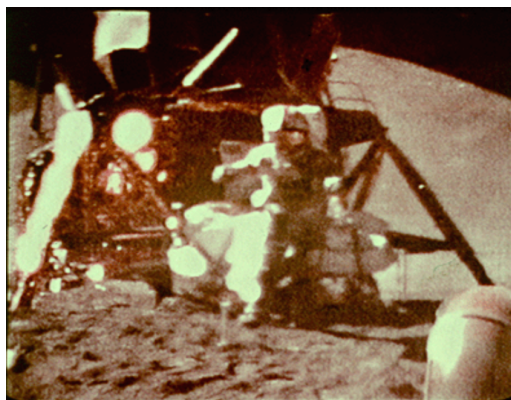


Figure 1: Hammer Feather Drop by David Scott, Apollo 15

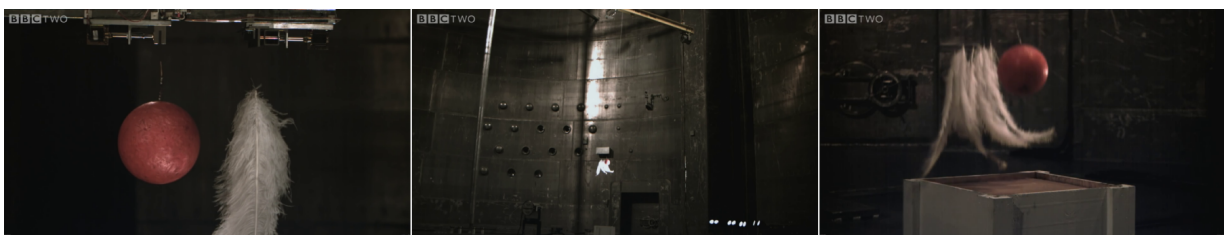


Figure 2: Falling body experiment, Brian Cox visits NASA's vacuum chamber - Human Universe Episode 4 Preview - BBC Two

All falling body experiments show one overlooked fact,  
*gravitational acceleration is independent of mass, shape, size, surface, and distance.*  
 Contrarily,  
*attracting acceleration is dependent on mass, shape, size, surface, and distance.*  
 Therefore,  
***"gravity is not attraction."***

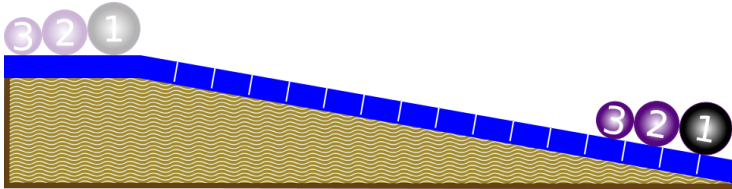


Figure 3: Slow Motion Gravity Shown By Inclined Plane

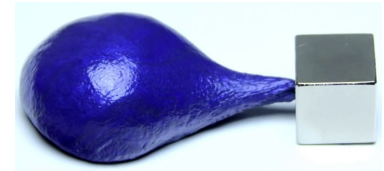


Figure 4: Slow Motion Attraction Shown By Magnetic Putty, YouTube user: Steve Bartlett

The experiments in vacuum chamber tell more than just gravity. Since space is inside chamber. It also shows the truth,

*the vacuum and space do not disrupt the fall,*  
 and reverse truth,  
*the ball and feather (both mass) and the motion of mass do not disturb vacuum and space.*

Note that it is gravity powers the fall. It also shows the truth,  
*gravity can act on mass, but vacuum and space can not be disturbed by gravity.*

In light of this, what really are *gravitational wave* and *geodetic effect*?

The experiments have showed one overlooked fact,

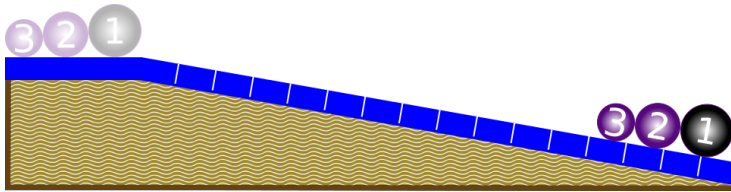
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*attracting acceleration is dependent on mass, shape, size, surface, and distance.*  
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Certainly, gravity is dependent of mass as any force, however, gravitational acceleration is not. Shape, size, and surface are functions of mass and distance, gravitational acceleration would have to be independent of mass and distance, isn't it?

We know there were variables in the Moon. Such as radiations, charge particles, temperature, magnetic fields. Also Scott's body mass and motion, radio transmissions, static electricities on his gloves, spacesuit, hammer, feather, and unknown variables. None of the

above had altered the fall in any significance. The only significant force acted upon hammer and the feather is gravity.

50 Galileo's ingenious inclined planes showed the gravitational acceleration is dependent on time not distance[2]. It would remain uniform regardless of the distance to the center of the Earth. All other falling body experiments clearly shown the independence of gravitational acceleration and it's mass and distribution of it's mass, *i.e.* shape, size, surface, and distance.



55 Figure 5: Slow Motion Gravity Shown By Inclined Plane

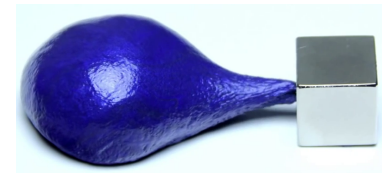


Figure 6: Slow Motion Attraction Shown By Magnetic Putty, YouTube user: Steve Bartlett

It is hard to comprehend the mysterious attracting force interpreted by the current theories of gravity. If there is attraction between the Sun and any planet. Say, Mercury is about six millionth of the Sun. Under the exponential force of attraction, it would have to speed up and chase down the Sun regardless the trajectory of the Sun or Mercury. Attraction force is exponential to any distance change. Objects can not maintain their positions under the force of attraction acceleration. Collision is the terminal event of free body attraction. It is clearly shown at work of unanchored objects in magnetism and electricity.

Behold all resting bodies are accelerating in uniform velocity in a gravity field if not acted upon by other forces. In real life, all resting objects riding on a ship will accelerate in uniform rate with the ship, regardless their differences or mass and distribution of mass (shape, size, surface, and distance).

The mystery is cleared upon understanding the gravity is not attraction but contact force. It is as simple as riding on a train, the momentum, of the train overrides yours. A person standing on top of the train can be blown away by the wind. However, he will continue standing on top of the train if it is moving in space where there is no particles dense enough to overcome his momentum.

On a plane, it controls you with it's momentum. Riding on the Earth, you have to obey the gravity of the Earth. You are freed when you get of the train, the plane, or the Earth.

Then, you move on your own momentum. On the other hand, suppose you had larger mass  
 75 than the train, plane or Earth, wouldn't your momentum overrides them and let you take  
 them to where you are going?

## 2 Free Fall Test

Suppose we use liquid droplets of very low viscosity.

As depicted in Figure 7, left chamber shows non-attracting  
 80 gravity force, droplet maintains it's sphere shape during the fall.  
 The right chamber shows the gravity is a force of attraction. Since  
 the attracting force is inversely proportional to the square of the  
 distance, the frontal part of the droplet would be pulled harder.  
 This uneven pull would stretch the droplets. The question is,  
 85 which chamber is the correct representation of gravity?

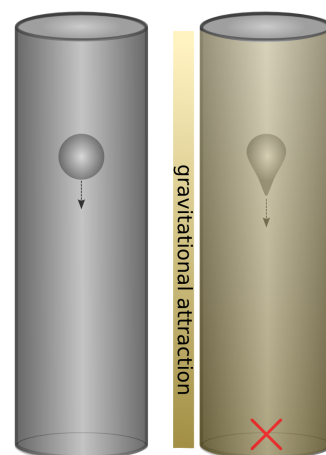


Figure 7: Free Fall Liquid Droplet in Vacuum Chamber

My answer is left chamber. The droplet will not stretch falling  
 in gravity field. Otherwise, it will conflict with the falling body  
 experiments. At the close-up view of the droplet, all individual  
 molecules would have to fall with uniform acceleration. The  
 90 frontal molecules of the droplet would not fall faster. Hence, the  
 droplet will not be stretched by gravity.

It would become clear if we test it with different arrangement of an iron ball and a dandelion seed in vacuum chamber absent of other forces, Figure 8.

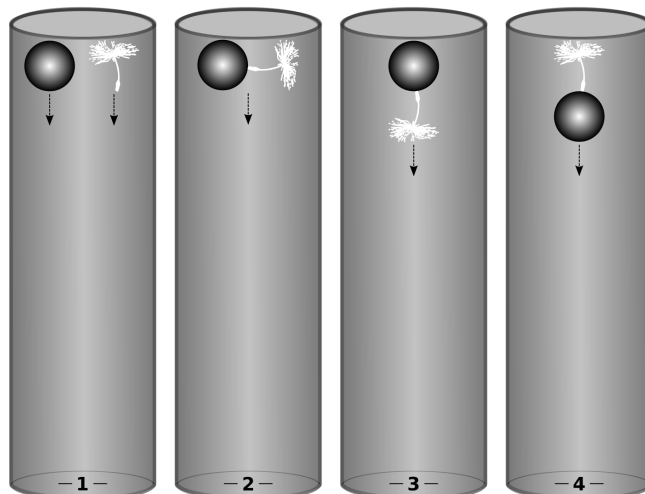


Figure 8: Sync Fall Tests

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The questions are:

- Wouldn't the iron ball accelerate faster, if gravitational acceleration depends on total mass, chamber 1 and 2?
- Would the iron ball push down and bend the dandelion seed, larger mass, chamber 3?
- 100 • Would the dandelion seed accelerate away from the iron ball due to closer to the ground, inversely proportional to the square of the distance, chamber 3?
- Would the iron ball accelerate away from dandelion seed, larger mass and closer to the ground?

Comparing to the hammer feather drop performed by David Scott on the Moon[7] and  
 105 Galileo's inclined plane experiments[2], don't they have to fall in uniform acceleration in any arrangement, regardless of the mass and distance?

### 3 Attraction and Tear

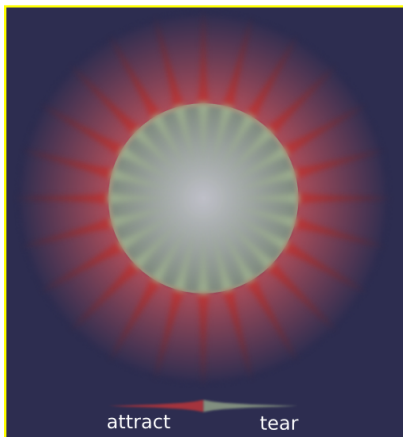


Figure 9: Attraction and Reacting Tear

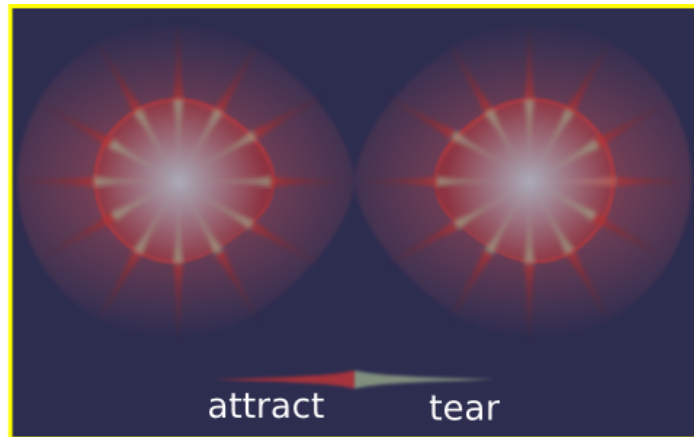


Figure 10: Attraction and Tear Between Objects

Force of attraction is dependent on mass and distance; or composition, size, shape, and  
 110 location. It is a force-at-a-distance. It can reach out even there is no friction.

On the other hand, attraction creates its reacting tear, as depicted in Figure 9. The tear force also depends on size, shape, composition, and distance.

It would impose nonuniform pull and tear on structures at conjunction of mutual attractive objects, Figure 10. Under this shape-changing pull and tear; The question is, if objects  
 115 could escape from collision, would all be unharmed?

Moreover, the interaction would alter the trajectory and rotation of mutually attracting objects. What is the fate of revolving conjunctions of mutual attractive objects?

## 4 Magnetic Attraction

Here, we test the magnetic attraction with a magnetic ball and a dandelion seed in a vacuum chamber with magnetic bottom. Figure 11 shows the experiment in gravity field, and Figure 12, in zero-gravity field.

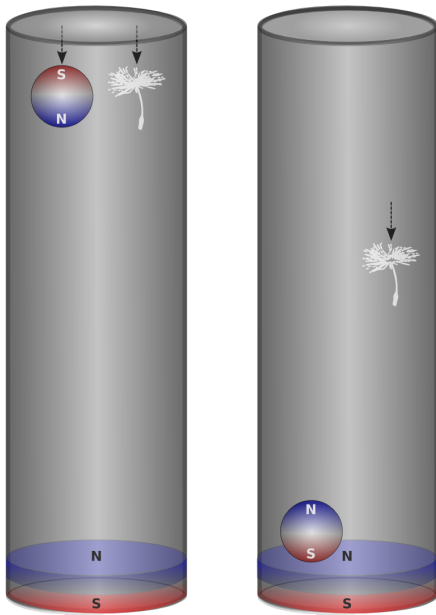


Figure 11: In Gravity Field

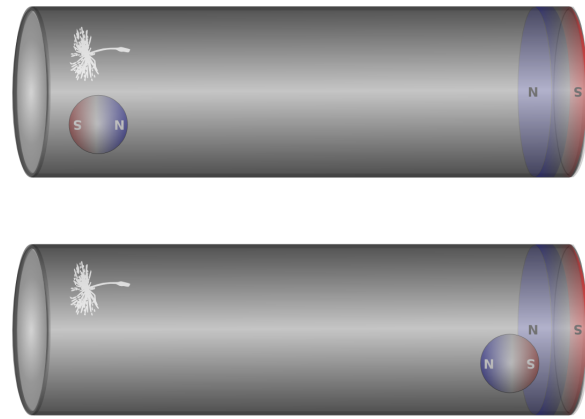


Figure 12: In Zero-Gravity Field

In gravity field, Figure 11, the magnetic ball will fall in exponential acceleration by the magnetic attraction. It would reach the bottom of the chamber first. On the other hand, only the ball will be attracted to the magnetic side in zero gravity field, Figure 12. The seed will remain at where it is. I believe it has to be truth, that all attracting acceleration is dependent on shape, size, composition, and distance

Also shown in both cases, magnetic attraction will overpower repulsion when magnets can rotate freely. The magnetic ball will rotate and align itself. The result is collision even there is repelling force at work. I believe it has to be true in frictionless space where all bodies are weightless and floating in space and free to rotate and translate.

Next, we test it with soft ball of ferromagnetic putty, as depicted in Figure 13.

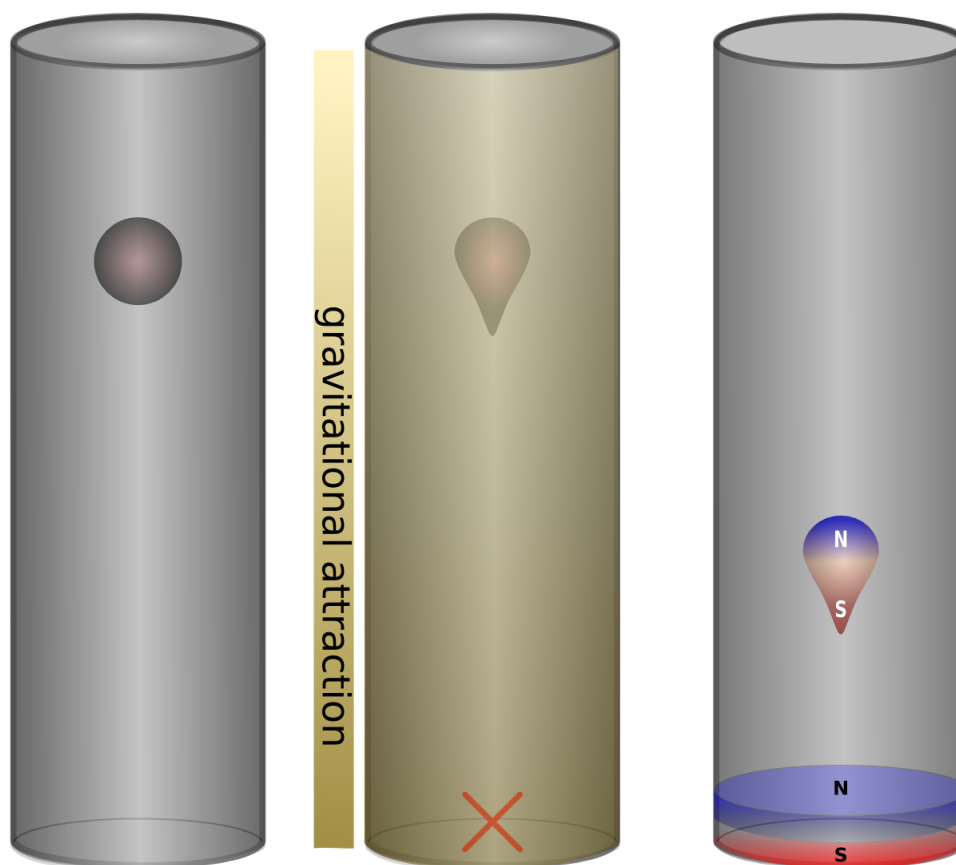
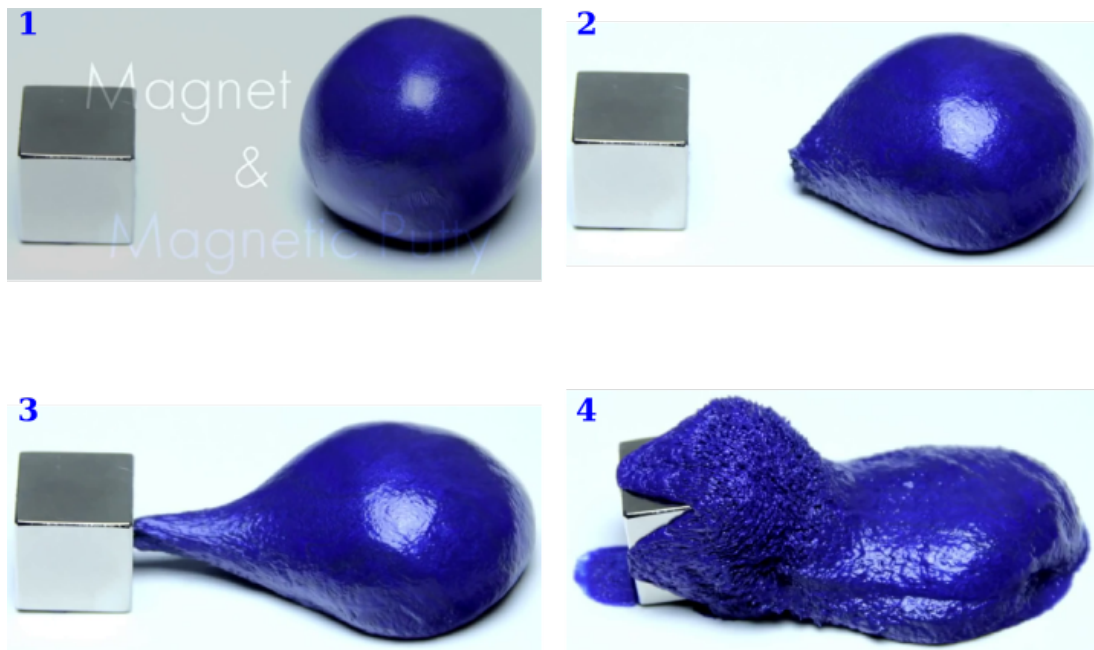


Figure 13: Soft Magnet Drop

135 Left chamber depicts non-attracting gravity force, the ball maintain it's sphere shape during the fall; Center chamber shows attracting gravity force, the ball is stretched; And, right chamber shows the presence of magnetic force, the ball is also stretched. The question is, which chamber is incorrect representation?

140 My answer, center chamber is incorrect representation. A soft ferromagnetic body will not be stretched by gravity. All molecules would fall in uniform rate. The frontal part will not fall faster. It will be stretched by magnetic attraction only when magnetic field is present, shown in right chamber.

There are many YouTube videos showing the natures of magnetic attraction. Figure 14 is screen shots of Magnet & Magnetic Putty - Time Lapse[5] by YouTube user: Steve Bartlett.



Screen shots of Magnet \& Magnetic Putty - Time Lapse[2]  
by YouTube user: Steve Bartlett.

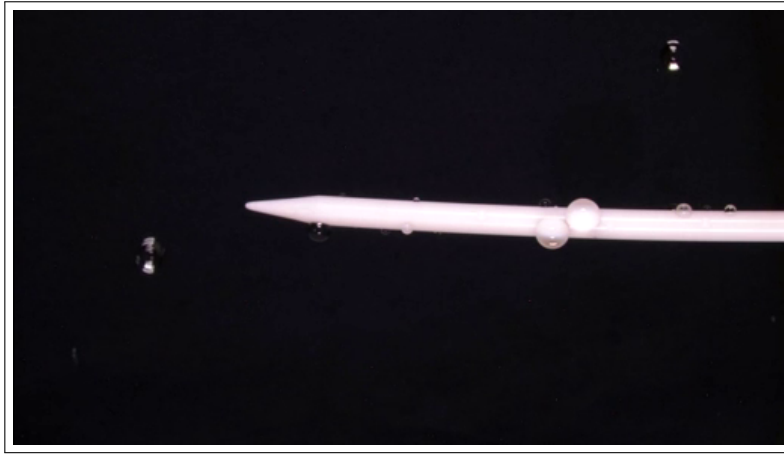
Figure 14: Magnetic Putty Attraction

Not only it shows the slow motion of the magnetic attraction, but also how the attract and tear force at work. We can see the attracting-tear force is dependent on shape, size, composition, and distance. Different parts of the putty are under different force of traction, hence nonuniform acceleration and tear.

## 5 Inescapable Collision of Attraction

Most of us have played or watched magnets in action. Unless they are tied down or guided, they always collide under the magnetic force. Even there is repelling force, magnets will rotate and attract. It shows the fact that, within the range of attraction force, collision is inescapable on frictionless surface.

This inescapable collision of attraction in free space is also demonstrated by Don Pettit's water droplets and needle experiment in International Space Station (ISS)[6]. A screen shot is depicted in Figure 15.



160 Figure 15: Inescapable Collision of Attraction Shown By Don Pettit's Water Droplets and Needle Experiment, ISS.

The attraction of static electricity attracts droplets within it's reach, it shows:

- bent trajectory,
- acceleration on coming, deceleration on going, and
- escape or collide.

165 However, there is no single droplet can maintain it's orbit around the needle. Orbiting droplets would accelerating in a logarithmic spiral and collide. If droplets didn't escape, it is impossible to keep them orbiting around the needle unless there is perfectly balanced count-acting force. Do you believe it is possible to make water droplets remained orbiting around the needle?

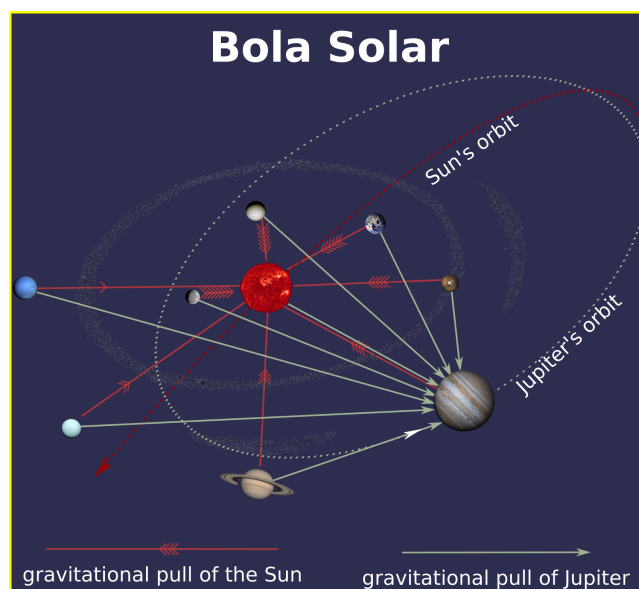
170 The truth is, within the range of attraction; The trajectory of a droplet will be bent toward the center of attraction. A droplet would escape if it's momentum could overcome the attraction (escape velocity), and it is not on the collision trajectory. Otherwise, it would continue to spiral toward the needle. The result can only be collision for orbiting droplets when there is attraction force at work. Nevertheless, if droplets didn't escape, it is impossible to  
 175 keep them orbiting around the needle unless there is perfectly balanced count-acting force.

Attraction is a force of gathering or collision. It has to behave the same whether it is gravitational, magnetic, or static, isn't it? We would be able to observe the same actions playing out in Solar System if it was held together by attraction force. Since the Sun has dominating mass; All objects in Solar System are within the reach of the Sun. And, they  
 180 are weightlessly floating in frictionless space. Only a small change in trajectory would be

amplified exponentially by the leverage of repeating orbital duration and distance. Unless there is an equal opposing force to secure all objects on their orbits, wouldn't they have to spiral down toward the Sun, if there was constant mutual attraction?

## 6 Paradox of Solar System

185 The mutual tug-of-war of all objects in Solar System is unimaginably complex. With the Sun accounts for about 99.86% of the total mass of the Solar System; Wouldn't the interactions of attraction be observable? A simplified version of attraction force of Solar System is depicted in Figure 16.



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Figure 16: Bola Effect of Solar System

Note that gravitational attraction is at work here if it existed; All objects in Solar System would have to pull each other constantly in exponentially proportional forces. Gravity is not an action-at-distance attraction. I don't believe it is gravity keeping Solar System but something else. It is studied in my other topics of *The Making of Planet and Gravity*[3] and  
 195 *The Making of Star and Solar System*[4].

## 7 Summary

Except electromagnetism, we are unable to replicate other forces of attraction. Any of our experiences and experiments with gravity-like is contact force, e.g.:

- Accelerating, turning, and decelerating of a car is contact force. It has no effect on non-riding objects at a distance.
- So is feeling heavier when airplane banks.
- Compression of submersibles.
- G-force.
- Artificial gravity.
- Rides in amusement park.
- Analogous to a pitching machine bounces balls off spinning wheels, gravitational sling-shot is gaining contact force by bouncing off the particle cushion of a rotating planet.

The only gravity force available to us is the contact force in the form of compression. We have no issue on sideway compression and downward push, weight; Why gravitational attracting force at a distance is so illusive?

From the study, gravitational attraction only introduces unsolvable paradoxes. Even a passing object can escape an attracting force field, it's trajectory and rotation would be altered. Attraction creates it's reacting tear. The pull and tear force imposed on the structures would perplex the issues. Moreover, the interactions of revolving conjunctions of orbiting objects.

I believe gravity does not come from nowhere. It cannot exist without mass as any other force. It has to be built by mass and it's momentum. It is a concentrative momentum of all elements on a common focus with uniform acceleration, regardless of their masses. Only one momentum can build such one way concentrative potential, head-on congregation from gentle pairing to high speed collision. It can be started by electromagnetic attraction/repelling or disturbance in the environment. The gathering coalesces structure, increases it size, and binding force of gravity. All joined elements share this center aiming potential, gravity. Objects moved to minimum contact field, *e.g.* above the atmosphere, would lost the strength of their concentrative potential and experience micro gravity or weightlessness. It is a push, squeeze, or compression; neither attraction nor pull.

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