

A Leap of Faith

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sydney
observatory
PART OF THE POWERHOUSE MUSEUM

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EXT. OBSERVATORY - DAY

GALILEO *stands looking up at NEWTON who is above him, on the Observatory balcony.*
He calls out to NEWTON.

GALILEO You Sir?

NEWTON Yes?

GALILEO Would you do something for me?

NEWTON Allow me first to introduce myself, Sir.

GALILEO Of course.

NEWTON I am Isaac Newton. The Lucasian Professor of Mathematics.

GALILEO I'm sorry, I don't know of you.

NEWTON I was born in the year you died, sir.

GALILEO Well then. That would explain it.

NEWTON I would gladly do anything for the great Galileo Galilei.

GALILEO Thank you.

NEWTON What is it that you wish me to do, sir?

GALILEO Jump.

NEWTON Jump, Sir.

GALILEO Indeed.

NEWTON I fear I cannot do that, sir.

GALILEO Pray tell me, why not?

NEWTON Well, I fear that I might be injured or even killed by such a venture.

GALILEO Good sir, I am trying to establish the science of the motion of matter.
Surely your own personal safety is irrelevant to such a venture.

NEWTON Do you think so?

GALILEO Certainly. But I am intrigued. You have not questioned the premise of
my investigation.

NEWTON What is that sir?

GALILEO I asserted the motion of matter.

NEWTON Yes.

GALILEO Singular.

NEWTON Matter is a unified, singular phenomena.

GALILEO You agree with me?

NEWTON Certainly I do.

GALILEO But when I began my research people actually believed that there was a difference between celestial matter and terrestrial matter. That in fact there were four kinds of terrestrial matter - fire, air, water and earth.

NEWTON I know. But since your work we accept that there is only one kind of matter. Corporeal matter.

GALILEO You mean...my findings have endured past my own death?

NEWTON That's right. I myself am trying to establish certain laws of motion of this unified matter.

GALILEO Then you should jump down. Then I can prove that this one unified kind of matter has only one form, heaviness, instead of two forms heaviness and lightness, which Aristotle assets.

NEWTON Yes, we now call it gravity. From the latin gravitas or heaviness.

GALILEO You mean....my findings about the singular form of unified matter have endured as well?

NEWTON Certainly. But now for the benefit of science I must jump.

NEWTON *makes as if to jump.*

GALILEO Wait. I should like to hear more of how my observations have endured. And if, as you say, you injure or kill yourself such a conversation might be impeded.

NEWTON True.

GALILEO You could drop something else.

NEWTON What?

GALILEO What else do you have with you?

NEWTON Only my lunch.

GALILEO What are you having for lunch?

NEWTON An apple. But I can't drop an apple.

GALILEO Of course you can, an apple will do fine.

NEWTON But I want to eat it.

GALILEO I shall catch it and give it back to you.

NEWTON Alright then. Stand directly under me.

GALILEO Why?

NEWTON Because it will move in a straight line.

GALILEO Unless something hits it on the way down.

NEWTON But that's it.

GALILEO What?

NEWTON The first law of this unified matter of yours. Objects in motion in a straight line...

GALILEO Or at rest...

NEWTON ...remain in motion....

GALILEO ...or at rest..

NEWTON Unless acted upon by a force.

NEWTON *drops the apple.*

GALILEO This apple is the mass. What we saw was the acceleration. So what shall we call the heaviness acting upon it?

NEWTON The force.

GALILEO The force of gravity. Throw something else.

NEWTON What?

GALILEO Your shoe.

NEWTON *throws down his shoe.*

NEWTON The force is with my shoe.

GALILEO Brilliant.

NEWTON Force equals mass times acceleration. That is my second law of motion.

GALILEO Two laws of motion. You don't want to go for gold and make it three?

NEWTON Three?

GALILEO Matter moves in a straight line. We can measure the force of motion and.....

NEWTON And I give up...

GALILEO Are you sure there's not one more thing?

NEWTON Come on. Two laws of motion in one day, isn't that enough?

GALILEO Oh well, if you're going to slacken off. I mean I knew you were a bit of a lazy bones, not wanting to jump for science when I asked you to.

NEWTON Lazy bones? You can't insult me.

GALILEO Can't I? I think I just did.

NEWTON Well then, you won't be surprised if I insult you back.

GALILEO Why should you do that?

NEWTON Because....if you do something to someone then that someone will do something back.

GALILEO Perhaps if you put it a little more elegantly?

NEWTON For every action there is an equal and opposite reaction.

GALILEO Which might equally be said of matter.

NEWTON Yes.

GALILEO And voila! You have law number three.

GALILEO *takes a bite of the apple.*

NEWTON Hey. That's my lunch.

NEWTON *watches, dismayed but amused, as GALILEO wanders off.*