

Gravity

by

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Setting

The rooms and laboratory of Isaac Newton at Cambridge University.

Time

September 1693.

Cast

ISAAC NEWTON - Natural Philosopher. Age 50.

BRILLIANA CAVENDISH - Wealthy widow. Indeterminate age.

JOHN LOCKE - Philosopher. Age 61.

ROBERT HOOKE - Curator of Experiments for the Royal Society. Age 58.

MRS. GRUNDY - ISAAC NEWTON's caretaker. Indeterminate age.

HANNAH NEWTON - Mother of ISAAC NEWTON. Age 22.

NOTE: The following roles should be doubled.

CHORUS OF CAMBRIDGE CITIZENS

BARNABAS SMITH - Stepfather of ISAAC NEWTON. Age 63.

SUCCUBUS - A young woman.

PROSTITUTE - A young woman.

Now see that mind that searched and made all Nature's hidden secrets clear, lie prostrate prisoner of the night.

--Boethius

Preface

On September 13th, 1693, Isaac Newton, Lucasian Professor of Mathematics at Cambridge University, sent a letter to famed diarist Samuel Pepys in which he wrote, "I am extremely troubled at the embroilment I am in, and have neither ate nor slept well this twelve month, nor have my former consistency of mind. I...am sensible now that I must withdraw from your acquaintance, and see neither you nor the rest of my friends any more." A second letter soon followed to the philosopher John Locke. In a thin and trembling hand, Newton wrote, "Being of opinion that you have endeavored to embroil me with women & by other means I was so much affected with it as that when one told me you were sickly & would not live I answered that it was better if you were dead."

The majority of Newton's subsequent biographers chose to ignore this "discomfiture of the mind" afflicting the man whose *Principia Mathematica* (1687) had laid out the framework for the world as we know it only six years earlier. And for centuries, the true nature of the work Newton was engaged in lay locked and hidden among trunks of forgotten papers. When the trunks were finally opened, one overwhelming truth became clear. Isaac Newton was not humanity's first scientist. He was our last sorcerer.

And it was in his laboratory at Cambridge that Newton had embarked upon what he was certain was the most important work of his life. He was seeking the truth and felt sure that the truth was seeking him. Plagued by the darkest of fears and possessed by the wildest of hopes, Newton drove himself relentlessly, until his mind and gaze left the Earth to contemplate the fathomless void of not only the heavens, but his own heart.

(The rooms of Isaac Newton reflect his state of mind. Supreme order does battle with supreme chaos. There are two entrances to the rooms and piles of books and papers everywhere. There is a table, two chairs, a fireplace, and beneath a curtained window is an unkempt bed. The room is dominated by Newton's favorite color--crimson. Separate from his living quarters is a laboratory, with a table, stool, and all manner of scientific instruments--flasks, alembics, cupels, gallipots, glister-pipes, bottle upon bottle of tinctures and powders, scales, and a large mortar and pestle. There is also a set of bellows and an athanor [an alchemical furnace] that burns day and night. Offstage there is laughter and the CHORUS enters [ideally, two couples, but one couple will do]. They sing the popular song, "Lavender's Blue.")

CHORUS

Lavender's blue, dilly dilly, rosemary's green.
When I am king, dilly dilly, you shall be queen.
Who told you so, dilly dilly, who told you so?
Twas my own heart, dilly dilly, that told me so.

(They pause in front of Newton's rooms, their voices tumbling atop one another.)

CHORUS

And there you are!...That's it?...Yes indeed, the rooms of Isaac Newton!...They seem small...Very small...He works in there?...Morning, noon and night...Doing what?...God knows...Not even God knows they say...Perhaps the Devil knows...Perhaps only Newton...Did you hear what was coming out his chimney the other day? Purple smoke!...Purple?...Now that's just a story...I've heard that he gives his lectures to empty classrooms...I've heard that he--

(a whispered aside)

No! I don't believe it!...But what is he doing in there? What is he searching for?...It doesn't bear thinking about... All these years on his own...It must be something wonderful...Or terrible...Come on then, the damp is setting in...And I've got a lovely bottle of port I've been dying to open...Let's leave Mr. Newton to his studies.

(The CHORUS heads off singing.)

CHORUS

I love to dance, dilly dilly, I love to sing.
 When I am queen, dilly dilly, you'll be my king.
 Who told me so, dilly dilly, who told me so?
 I told myself, dilly dilly, I told me so.

(The CHORUS exits. Lights fade to black, then come up on NEWTON framed in the doorway. He wears an academic robe and his long silver hair falls to his shoulders. A glance upwards and he heads into his laboratory. He wears leather gloves and uses iron tongs to pick up a "Philosopher's Egg." He places the egg inside the athanor, and the orange glow from the heat bathes his face. He uses the bellows, closes the athanor, removes his gloves, and opens a book. Dawn arrives as MRS. GRUNDY enters.)

GRUNDY

Professor Newton? Professor Newton, sir?

(She finds a covered plate on the table and lifts up the cover to reveal an uneaten dinner. She sits down, picks up a chicken leg, and begins eating. NEWTON moves from his laboratory to his rooms and is surprised to see MRS. GRUNDY in mid-meal.)

NEWTON

Mrs. Grundy!

GRUNDY

Yes sir!

NEWTON

What are you doing here?

GRUNDY

I just came in to clean up your dishes, sir.

NEWTON

Just now?

GRUNDY

Yes!

NEWTON

I didn't hear you come in.

GRUNDY

I do like to be quiet when you're working, Professor. You never touched your dinner.

NEWTON

An oversight you appear to be in the process of rectifying.

GRUNDY

Well, I shouldn't like a perfectly good meal to go to waste. How you exist on the amount of food you eat is quite beyond me.

NEWTON

Mrs. Grundy, the list of things that are quite beyond your mind stretches from here to infinity.

GRUNDY

Oh! Thank you, sir.

(She continues to eat as a knock sounds at the door.)

GRUNDY

That's the door, Professor.

NEWTON

Tell whoever it is to go away!

(NEWTON returns to his laboratory to check on the contents of the furnace as MRS. GRUNDY ushers in JOHN LOCKE.)

LOCKE

Ah, Mrs. Grundy! May I say that you are looking as radiant as ever this morning?

GRUNDY

Oh, thank you, Mr. Locke! You're always such the gentleman.

LOCKE

And how is Professor Newton today? Capable of civilized conversation?

GRUNDY

I should say so! He just told me I have an infinite mind!

LOCKE

Did he now? Well, that is promising. I'll just sound him out, shall I?

(LOCKE moves further into the room as NEWTON emerges from his laboratory.)

MRS. GRUNDY finds some tidying up to do so she can listen to their conversation.)

LOCKE

Good morning, Isaac!

NEWTON

John? What brings you all the way from London?

LOCKE

Oh, nothing much. Just a few appointments in Cambridge, so I thought I would stop by. And our friend Halley has a mathematical problem he would like your opinion on.

(LOCKE pulls a document from his coat and holds it out to NEWTON, who ignores it.)

NEWTON

I really am quite busy.

LOCKE

Isaac, you are perpetually quite busy. But you know as well as I do that your *Principia Mathematica* would not have been published six years ago were it not for Halley's help. And money. It's a small enough favor to ask, don't you think?

NEWTON

I simply don't have the time.

LOCKE

Ah, pity. Just as well, I suppose. How did Halley put it? Oh yes. He said he felt the problem was unsolvable by any mortal man.

(NEWTON snatches document from Locke.)

LOCKE

Excellent! Now then, I have one more favor to ask and I'll be on my way. An acquaintance of mine has expressed a desire to meet the great Isaac Newton.

NEWTON

You know very well that I have no interest in expanding the circle of my acquaintances.

LOCKE

Ah, but you should. As a man who considers himself to be a natural philosopher, I would call it almost a professional obligation.

NEWTON

How so?

LOCKE

How is knowledge acquired? Through sensation and reflection. All of what we know derives from experience and having locked yourself up in these rooms for the past six years, I think a little experience might do you good.

NEWTON

I did read your *Essay on Human Understanding*, John. There's no need to quote me chapter and verse.

LOCKE

So you agree?

NEWTON

No.

LOCKE

Isaac, let me be frank. This constant isolation of yours isn't healthy. A brief visit from an admirer now and then would be good for you.

NEWTON

What sort of man is he, this acquaintance of yours?

LOCKE

He isn't.

NEWTON

Isn't?

LOCKE

A man. Allow me to run through the syllogism for you. The individual in question is a human being. It isn't a man. Ergo--

NEWTON

A woman?

LOCKE

Bravo! Yes! Your reputation as the unparalleled genius of our age is secure.

NEWTON

Impossible! A woman here? Out of the question!

LOCKE

Isaac, she's not what you might imagine. Not the card-playing, needle-working sort of woman who has been raised to have cotton wool for brains. She's a woman of substance. A widow. A wealthy widow, I might add. And as such the very terror and desire of practically every man in London. Her name is Brilliana Cavendish.

NEWTON

No.

LOCKE

Come now. Just for a moment or--

NEWTON

It wouldn't do. Not now.

LOCKE

Why not?

NEWTON

Because I am on the brink of...

LOCKE

Of what?

NEWTON

The unimaginable. But I have imagined it. And done more than merely imagined it.

LOCKE

I'm listening.

NEWTON

You would laugh if I told you.

LOCKE

No, Isaac, I wouldn't. Perhaps I might if the unimaginable came from someone else, but not from you. This is what, some new invention, new idea of yours?

NEWTON

What I am working on is not a new idea. To the contrary, it is perhaps the oldest idea, if one could even call it that. In truth, it was a gift--a gift that was given to us. A gift that we have set aside and forgotten. A once tangible thing that has now become a myth...a legend. So no, I am not in the process of discovering anything. I am merely trying to recover what humanity once had.

(LOCKE becomes aware that MRS. GRUNDY is listening intently.)

LOCKE

Isaac--

NEWTON

And yes, many men have gone down this path before me. And they failed. Almost every one of them. Their lives ruined in the quest.

LOCKE

Isaac--

NEWTON

But you see, they were guessing. Hoping. Stumbling blindly from one thing to another. And there's the difference. I do not guess. Or hope. I experiment. I measure. I test. I keep time. I keep records. Records of everything I have done. And I have completed thousands of experiments, one failure after another admittedly, but always closer, always learning, always seeing further. Until now, I feel certain I am standing on the precipice of--

LOCKE

Isaac!

(The force of LOCKE's tone brings NEWTON up short. They both turn to MRS. GRUNDY.)

NEWTON

That will be all, Mrs. Grundy.

GRUNDY

Oh! I'm sure I wasn't listening, sir.

NEWTON

That will be all!

(MRS. GRUNDY exits.)

NEWTON

What do you think she heard?

LOCKE

Nothing. Because you didn't say anything.

NEWTON

Just as well. The wrong word in Mrs. Grundy's ear and she would be down at the nearest public house exchanging details of my work for glasses of gin.

LOCKE

But now that she's gone...

NEWTON

No. I've said too much already. It's unfinished. I don't like speaking of my work until I'm certain I have it right. Imagine what my rivals might attempt to do with the knowledge if they learned of my work before I completed it.

LOCKE

You have no rivals, Isaac.

NEWTON

But I do! Hooke is the worst of them.

LOCKE

No, a rival implies a degree of equality. You have no rivals. Only enemies. Dr. Robert Hooke is your enemy.

NEWTON

Do you see him at all?

LOCKE

Hooke? At the Royal Society, yes. He's always asking what you're up to and when anyone hazards a guess, he spends the next hour explaining to everyone why you're wrong and how he came up with the idea first anyway.

NEWTON

Hooke is a man who sees a sliver of the night sky and imagines he understands the cosmos. He's a fool.

LOCKE

No, he isn't. He's as gifted as he is unpleasant. But his jealousy of you does seem to unhinge him upon occasion.

NEWTON

Well, just wait until my work here is complete. He'll have to be carted off to Bedlam. I would enjoy that. Seeing Hooke locked up in the madhouse he designed.

LOCKE

So, this work. When do you imagine you'll be finished?

NEWTON

Soon, I hope.

LOCKE

Here? In your laboratory?

NEWTON

Yes, but more importantly in my heart. In my mind. In my soul. This is a work that requires more than simply the right formula or theorem.

LOCKE

Intriguing. You'll keep me apprised?

NEWTON

Of course. Now if you'll excuse me.

(NEWTON moves towards his laboratory, staggering a little from fatigue.)

LOCKE

Are you getting enough rest?

NEWTON

Rest? Allow me to acquaint you with the first law of motion. Bodies in motion tend to stay in motion. Bodies at rest tend to stay at rest. I prefer to keep moving.

LOCKE

Then let me put it this way. Did you sleep at all last night, Isaac?

NEWTON

I'll sleep well enough when I'm dead.

LOCKE

But you must--

NEWTON

I have my work to do! I can't afford to idle the night away sleeping. I'm not immortal. God has only given me a certain number of years, of months, of days. Every minute is precious. Every second.

LOCKE

But you cannot continue to drive yourself to the point--

NEWTON

Kindly allow me to conduct myself as I see fit!

LOCKE

By all means, Isaac. By all means.

(LOCKE exits. NEWTON enters the laboratory to check the furnace, then goes back into his rooms. There is a rumble of thunder and the curtain billows. NEWTON moves to the window and runs his hand along the fluttering curtain. Fatigue overwhelms him. He sheds his robe and collapses on his bed. Day becomes night and NEWTON bolts upright with a cry.)

NEWTON

Who's that? Who's there?

(MRS. GRUNDY enters with a candle and gently urges NEWTON back to sleep. She covers him with his robe and exits. As morning light filters through the window, the curtain billows gently and BRILLIANA enters, clad head to toe in widow's black, including a black veil. Although her features are concealed, there is considerable substance shimmering beneath her surface.)

NEWTON's eyes open. His hand reaches up to touch the curtain.)

BRILLIANA

Brilliana.

(NEWTON starts in surprise, scrambling out of bed and putting his robe on. Whenever BRILLIANA approaches him, he keeps his distance from her.)

NEWTON

I'm sorry. What?

BRILLIANA

Brilliana Cavendish. Didn't Mr. Locke tell you about me?

NEWTON

Mr. Locke? Yes, but--

BRILLIANA

I had no idea you had tennis courts here at Cambridge! I just saw them on my way in! Do you play?

NEWTON

Tennis? Well, I--

BRILLIANA

I think it's a wonderful sport! Have you seen the way they can make the ball curve with their racquets? It's quite amazing, don't you think?

NEWTON

No. It simply requires striking the ball at an oblique angle.

BRILLIANA

Well, I understand how the ball would spin if it hit the ground, but why does it curve in the air?

(NEWTON picks up a wooden ball and uses it for illustrative purposes.)

NEWTON

When the ball is spinning, the parts on this side, where the motions conspire, must press and beat the contiguous air more violently than on the other, and there excite a reluctancy and reaction of the air proportionately greater. I happened to observe that one afternoon when I was wondering if rays of light could swerve in the same way, that is to say, if light could be made to bend.

BRILLIANA

Wonderful! Just wonderful! Your rooms are nothing like I imagined! Well, perhaps something like I imagined. Why is everything so red? Is it your favorite color?

NEWTON

Madam, am I to understand...did you simply walk in here?

BRILLIANA

I did knock. Perhaps you didn't hear me because you were sleeping.

NEWTON

Presumably so, but still--

BRILLIANA

I can hardly believe I'm here! Not ten feet away from the most brilliant man in England! In Europe! In the world! I just feel so privileged! I do! It's so, so good of you to see me! Now, what were you saying?

NEWTON

Mrs...

BRILLIANA

Cavendish. Brilliana. But don't let the "Mrs" mislead you.
(she lifts her veil)
I have no husband.

NEWTON

Yes, Mr. Locke told me that you were a widow, as I can see. I'm sorry for your loss.

BRILLIANA

I'm not.

NEWTON

Pardon?

BRILLIANA

Not all widows mourn their spouses, Mr. Newton. The black is a gesture to convention, nothing more. Once my official year of mourning is over, I have sworn that I will never wear the color black again.

(BRILLIANA begins inspecting the rooms more closely as NEWTON formulates a strategy to be rid of her.)

NEWTON

Mrs. Cavendish, I am, of course, delighted to make your acquaintance, but as it happens, I'm inordinately busy at this precise moment, and since it's almost...good God, it's one o'clock!

BRILLIANA

How do you know that?

NEWTON

Know what?

BRILLIANA

The time. I see no clock.

NEWTON

I can tell the time from the angle of the shadow the sun casts on the fireplace.

BRILLIANA

How wonderful! You're everything I expected!

NEWTON

Quite. Now then, the timing of what I am currently engaged in is critical, so I do need to check on--

BRILLIANA

And what is it you're working on? Is it mathematics? Astronomy? Is it something new?

NEWTON

Yes and no.

BRILLIANA

Will you show me?

NEWTON

No! But I really must...please, just don't move!

(NEWTON runs to his laboratory, clears a space on the table, opens the furnace, and uses iron tongs to remove the Philosopher's Egg. He places it on a metal stand on the table. Meanwhile, BRILLIANA has removed a notebook from the shelves and leafs through it. When something in the notebook catches her eye, she walks quickly to the laboratory, stopping dead at the sight of NEWTON with the Philosopher's Egg.)

BRILLIANA

What is that?

(NEWTON whirls and tries to mask his alarm.)

NEWTON

It's nothing. Just a fancy of mine...a trifle with which I have been amusing myself.

BRILLIANA

Can I watch you? Can I watch what you're doing?

NEWTON

No! Madam, please--

BRILLIANA

Oh! Is it a secret? I'll wager it is! It's a...oh! I see! I'm sorry! I'll just...dreadfully sorry! I didn't see anything! Do carry on!

(BRILLIANA turns back into NEWTON's rooms, while NEWTON agonizes over what to do.)

NEWTON

Mrs. Cavendish!

(BRILLIANA edges back towards the laboratory and NEWTON waves her in)

Please. Do come in. I'm being very rude, and I apologize. I didn't mean to imply that this was...

BRILLIANA

A secret?

NEWTON

Precisely! Because it's nothing of the kind. Just a minor issue about which I was curious. I can't imagine it would interest you at all.

BRILLIANA

Oh, but it would! I wouldn't dream of intruding upon your more serious work, but if this is something trivial, won't you please explain it to me? Please?

NEWTON

(forcing a smile)

Gladly. Very well. This, madam, is what is known as a Philosopher's Egg. It's a kind of crucible in which various substances can be heated for long periods of time. To do so, I place the egg in "Slow Harry" over there.

BRILLIANA

Slow Harry?

NEWTON

A long-burning furnace, more properly known as an athanor.

BRILLIANA

So is there something inside the egg?

NEWTON

Yes.

BRILLIANA

What?

NEWTON

Nothing very extraordinary or secretive, I assure you. I have simply mixed together a number of ingredients--I won't bore you with the details, and then I placed them in here and have allowed the concoction to heat for a set period of time.

BRILLIANA

And what do you expect to find when you open it?

NEWTON

Well, if my calculations are correct, inside we shall find a solid object of the deepest, most impenetrable shade of black imaginable. So black as to make your dress appear positively gay by comparison.

(NEWTON reaches for the egg, then pauses.)

BRILLIANA

Why do you hesitate?

NEWTON

This is but the first stage in the process. And if you only knew how many times I have gone down this path only to...

BRILLIANA

Fail?

NEWTON

I don't believe in failure. I only believe in learning from one's mistakes. And I believe in the power of faith. One must have faith. No matter the price. No matter how long it takes. We must have faith in something, or we are nothing.

(NEWTON opens the egg to reveal exactly what he described. He lifts out the black object with tongs and holds it up, joy lighting his face.)

BRILLIANA

You were right! It's as black as coal!

NEWTON

Yes! We begin well.

(NEWTON places the black stone on a pedestal, and begins to add more fluids and powders to the interior of the egg. He measures, sniffs, and even tastes some of the materials he is handling.)

BRILLIANA

Were all of the original materials black?

NEWTON

No.

BRILLIANA

Then why have they turned that color?

NEWTON

Everything has a pure state. A pure condition. Every person, every object, every atom in the universe. Matter is not passive, madam. It is active. Alive.

BRILLIANA

Surely not. This table is hardly alive.

NEWTON

Ah, but it is! There is a fire that pervades matter, a secret fire. An energy, unseen and unfelt, but there nevertheless. This table is not what it seems to our poor, unseeing eyes. Just as you are not what you seem. Nor am I. What we perceive around us are transitory states on a journey towards final purity. And it is towards that pure condition that everything instinctively strives.

BRILLIANA

Towards perfection.

NEWTON

Yes! God is perfection. Eternal and immutable. That is why we strive towards Him. And think, what is the earthly object that men lust after with all their hearts? Gold. The most perfect of metals. Try as you might, you cannot tarnish, change or degrade gold into something lesser. And so what you see here is the result of putrefaction, the drawing out of that which was impure and unclean in the original materials. The first step in the process I am engaged in is dislodging the impurities and making them rise to the surface where they can be burned away.

(NEWTON places the black stone back inside the egg.)

BRILLIANA

If this is but the first step, how many more steps are there?

NEWTON

Two. I regret, of course, that you will not be here to witness them, but they will take some time. And the egg must be removed once more so that the final and most important ingredients may be added.

(NEWTON places the egg back into the furnace and closes it.)

BRILLIANA

And what color will the substance inside be then?

(MRS. GRUNDY enters, bearing a lunch tray. She cannot see NEWTON and BRILLIANA in the laboratory.)

GRUNDY

Cooee! Lunchtime, Professor!

(NEWTON puts his finger to his lips and motions to BRILLIANA to stay where she is.)

GRUNDY

Professor? You must eat! I've got a lovely broth for you and a nice chop.

(NEWTON emerges from his laboratory.)

NEWTON

Excellent! Thank you, Mrs. Grundy! It looks wonderful! You may go.

GRUNDY

Now don't you try and get me out of here, Professor. I want to see you sit down and eat a proper lunch.

NEWTON

I will! I swear to you! I'm absolutely ravenous!

(At MRS. GRUNDY's skeptical expression, NEWTON grabs the chop from the plate and tears into it.)

GRUNDY

Good Lord!

NEWTON

Delicious! Perfectly delicious! That will be all, Mrs. Grundy.

(MRS. GRUNDY edges her way out, keeping an eye on NEWTON as he waves her away.)

GRUNDY

Oh, I meant to ask you, sir. Will Mr. Hooke be visiting today? Shall I bring him some lunch as well?

NEWTON

Mr. Hooke? What are you talking about? Hooke is in London.

GRUNDY

No, I just saw him speaking with Professor Smoult as I was bringing your lunch over. He's not an easy man to miss, if you catch my meaning. I assumed he would be calling on you.

NEWTON

Well, whether he is calling on me or not, he won't be requiring lunch because he will not be staying long.

GRUNDY

Very good, sir.

(MRS. GRUNDY exits and NEWTON hurries to the window and looks out. He rushes back to BRILLIANA.)

NEWTON

You must go!

BRILLIANA

This instant?

NEWTON

Yes!

BRILLIANA

But I may visit you again?

NEWTON

Madam, as diverting as these past few minutes have been, I fear that we do not have a great deal in common. To put the matter bluntly, we simply have nothing to offer one another.

BRILLIANA

You mean I have nothing to offer you.

NEWTON

Please, don't take offense. Clearly, you are a woman of considerable grace and, if I may say so...comeliness. Beyond that, as Mr. Locke informed me, apparently you are a woman of considerable wealth as well. As such, I don't doubt that you need merely appear in public and you will be positively inundated with friends, admirers, and suitors.

BRILLIANA

But still, for all my grace, comeliness and money, I have nothing to offer you.

NEWTON

I'm sorry.

BRILLIANA

Is there anyone?

NEWTON

Anyone what?

BRILLIANA

Who has something to offer you?

NEWTON

No. No one.

BRILLIANA

Has there ever been anyone?

NEWTON

No. Now please. You must go.

(BRILLIANA picks up a large book.)

BRILLIANA

This is your famous work, the *Principia Mathematica*?

NEWTON

Yes.

BRILLIANA

If I were to read it, to understand your laws of motion and gravity, could I come back and see you?

NEWTON

By all means. But I'm afraid you will find that the entire text is written in Latin.

BRILLIANA

I can read Latin.

NEWTON

Indeed? Well, then I shall let you in on a little secret. Beyond being written in Latin, I purposely made the book as abstruse and difficult to comprehend as possible. Do you know what the small boys shout when they see me on the street? "There he is! The man who wrote a book that neither he nor anyone else understands!"

BRILLIANA

Why should you do such a thing?

NEWTON

I will not be baited by little smatterers in mathematics! You have no idea the number of men out there who style themselves as authorities on every subject under the sun. The first paper I ever published, on optics and the nature of light, was the product of years of thought and experimentation. And when it was published there were men who had the audacity to tell me I was wrong! And why was I wrong?

(MORE)

NEWTON (cont'd)

Because upon due consideration it didn't sound quite right to them. It didn't feel quite right. And the worst of them was Robert Hooke!

BRILLIANA

But if I were to genuinely comprehend your work--

NEWTON

You don't seem to understand! It is not a piece of literature that you can simply pick up and read like Chaucer's *Canterbury Tales*! To understand the contents of the *Principia* you would have to be familiar with Euclid's *Elements* to comprehend the work on conic sections. For algebra, you would have to read Bartholin and the writings of Francis Schooten. For astronomy, Gassendus's and Mercator's works, and finally, perhaps Hugenius's *Horologium oscillatorium*. I'm sorry. I don't doubt you mean well, but...I'm sorry.

BRILLIANA

So am I.

(There is a knock at the door.)

NEWTON

He's coming! He mustn't see you! Go out this way!

(BRILLIANA moves to leave, still holding the *Principia*.)

BRILLIANA

I'm taking this with me.

NEWTON

With my compliments.

(BRILLIANA exits. NEWTON sits at the table in his rooms and tries to look busy. HOOKE is ushered in by MRS. GRUNDY. Pale and lean, he is afflicted with a "crooked" back and possessed of a quick eye and mind. He carries a cane, but more for fashion than physical support.)

HOOKE

Ah! *Ecce homo*! Behold the man! There he sits, the very essence of genius itself!

NEWTON

Your infantile jests may be the delight of the more cretinous members of the Royal Society, Mr. Hooke, but they are not appreciated here.

HOOKE

Dr. Hooke, to be precise, Mr. Newton.

NEWTON

Have you nothing better to do with your time? Why are you here?

HOOKE

Well, I happened to run into the cretinous Edmond Halley at the Royal Society and he informed me that the equally cretinous John Locke brought you one of his mathematical problems to solve.

NEWTON

What of it?

HOOKE

Well, I thought to myself, "Poor old Isaac, locked away in his rooms, bereft of any kind of human contact. Perhaps I should do the noble thing and venture out to Cambridge to offer him my assistance with Halley's problem!" Surely you would agree, two minds are better than one!

NEWTON

Not when one of the minds is yours.

HOOKE

No? Nine years before your precious *Principia* was published, I was the one who proposed the idea that all celestial bodies have a gravitating power and that their movements are dictated by their proximity to one another. That was my idea, not yours!

NEWTON

It's one thing to glimpse a truth. Quite another to prove it.

HOOKE

Damn you! No, I couldn't prove it! But it was my idea! You couldn't have given me credit for that?

NEWTON

I did, Hooke. Initially, you were mentioned quite prominently in the *Principia*. Until I heard you were making all kinds of wild claims about what was your work and what was mine. And at that point, I went through the entire text and excised every single mention of your name.

HOOKE

You're a thieving plagiarist and you know it.

NEWTON

Accuse me of plagiarism again and I'll horsewhip you all the way back to London. My work is my own.

HOOKE

So you would believe. And so you would have others believe. But no man exists in a vacuum. Not even the great Newton and the magic circle of his infallibility. You should give credit where credit is due.

NEWTON

Is this why you came here? To upbraid me with your whining and tired accusations?

HOOKE

Well, if I'm going to be perfectly honest, I came here because Locke told me to come.

NEWTON

You're lying. Locke would never say such a thing.

HOOKE

Not in so many words, no. But when I asked him what you were working on, he kept putting me off. The more I pressed him, the more evasive his answers became. And so at length I somewhat facetiously declared my intention of coming straight here to see you. At which point Locke expressly forbade me from doing anything of the kind. So of course, here I am!

NEWTON

I have nothing to say to you about my work. Not now. Not ever.

HOOKE

Yes, I fancied that might be your response. Which is why I've just had a most instructive conversation with Professor Smoult.

NEWTON

I barely know Smoult.

HOOKE

You barely know anyone. I, on the other hand, enjoy the company of my fellow humans. I do! I enjoy chatting and gossiping with all manner of people in all manner of places. And do you know, the number of people who relish speculating upon the great Newton is absolutely astonishing, it really is! The sheer number of salacious and unsavory rumors that surround your name are a testament to your fame. Let's take just one, shall we? Your religious views.

NEWTON

Are none of your concern.

HOOKE

True. I'll grant you that. But then, you do work and teach here at Trinity College in Cambridge.

(MORE)

HOOKE (cont'd)

In that capacity, isn't it absolutely required of you to take religious orders and to be ordained as a minister in the Church of England? Of course, it's a mere formality, but have you been ordained, Isaac? Professor Smoult says you haven't.

(NEWTON stays silent)

Well, isn't that odd? Exceedingly odd. Why would that be? Why would the great Newton refuse to be ordained? Smoult was too diplomatic to suggest a reason, but I'm afraid diplomacy has never been my strong suit, so I'll say it straight out. You, Isaac, are an atheist.

NEWTON

And you, Hooke, are a fool. My personal connection to God is one that you couldn't possibly comprehend.

HOOKE

Oh, I don't doubt it, simpleton that I am. But won't you take pity on a poor, ignorant soul? What is this connection of which you speak?

NEWTON

I need merely look around me to see proof of God's existence. Light is the mind of God and the wind is His breath. God is the Creator and my work has shown that He designed the cosmos using rational and universal principles. This most beautiful system of the sun, planets, and comets could only proceed from the counsel and dominion of an intelligent and powerful Being.

HOOKE

Then I don't understand. Why not simply affirm your belief in the Father, Son and Holy Ghost and be done with it? Or is that it? You say you believe in God, but do you believe in the Holy Trinity?

(NEWTON stands silent)

Ah, now I see! Oh, yes, yes! My apologies for suggesting you were an atheist, Isaac! That's not it at all! You're a heretic!

NEWTON

And isn't it odd how often heresy and the truth are indistinguishable from one another?

HOOKE

Well, this is a fine state of affairs! The Professor of Trinity College who denies the existence of the Trinity! Goodness!

NEWTON

The very idea of a Holy Trinity is ludicrous. Three cannot be one and one cannot be three. The whole notion of a Trinity is a blasphemy foisted upon credulous Christians centuries ago.

(MORE)

NEWTON (cont'd)

I have determined to my own satisfaction that the Trinitarian passages in the Bible are corruptions of the original text. Yes, Jesus Christ was the son of God, but Jesus was not divine!

HOOKE

Poor Jesus. Demoted by Newton. Oh dear. You realize, of course, that your anti-Trinitarian views put you in direct violation of England's official religion, Isaac.

NEWTON

So be it. Religion has become so corrupt as to be pointless. The only way to come to knowledge of the Creator is through the frame of nature, and that is the task to which I have devoted my life.

HOOKE

How exceedingly noble of you. Still, should news of your religious views get out...

NEWTON

You will never find me on my knees like Galileo before the Inquisition. So don't try to threaten me, Hooke.

HOOKE

What choice do I have? It's really an impossible situation you're putting me in, Isaac! Very rude and ungracious of you. I want to know what you're working on and you won't tell me.

(points towards the laboratory)

What's over there?

NEWTON

Nothing of interest to you.

HOOKE

Indeed? That's precisely what I hoped to hear.

(HOOKE runs for the laboratory with
NEWTON at his heels.)

NEWTON

Don't go in there!

(HOOKE enters the laboratory and
circles around, keeping an eye on the
enraged NEWTON.)

NEWTON

Out! Get out this instant! Do you hear me? I want you out of here, Hooke!

HOOKE

My God! So this is it. Yes! Now I understand! It's all here. The flasks, the gallipots and glister-pipes. Mortar and pestle. Salt of tartar, mercury, antimony, black sulphur, nitric acid. And the books...the books, Isaac. Each and every one devoted to one topic and one topic alone...alchemy. So this is the great, burning secret you have kept from the world. Isaac Newton is an alchemist!

NEWTON

You would be wise to not judge what you know nothing about.

HOOKE

Oh, but I do know about alchemy, Isaac. I know that it's a capital crime. Know that men have been hanged for it. And do you know the charming thing? They dress the alchemists in tinsel covered clothes and then hang them from gilded scaffolds! It's quite the spectacle, I understand. So speaking of gilding, where is it?

NEWTON

What?

HOOKE

The gold, Isaac! The immense, heaping piles of gold!

NEWTON

There is more to alchemy than gold, Hooke.

HOOKE

Quite right. I almost forgot. The accomplished alchemist can also create the elixir of eternal life. What a nice combination--unimaginable wealth and immortality to go along with it! Well, what can I say but congratulations! Well done, sir! Truly, you have surpassed yourself and please allow me to be the first to bask in the glow of your immeasurable greatness!

(HOOKE giggles at his own
sarcastic cleverness)

This is really too much! My God, what a worthwhile trip. Isaac Newton, heretic. And Isaac Newton, alchemist. They'll have to hang you twice, I suppose.

NEWTON

For what? There isn't a man in this country capable of comprehending what I am engaged in here. And as you say, there are no heaping piles of gold to establish my guilt, so you would be able to prove nothing. Nothing, Hooke. Now, if you're quite finished, I have my work to get to.

HOOKE

No, no, no. I am nowhere near finished, Isaac. There is more to this. More than what I'm seeing here. Transmutation, the multiplying of metals--it can't be done!

(MORE)

HOOKE (cont'd)

It has never been done. The alchemists are fakers and posers! A dying breed of pathetic charlatans! You wouldn't waste your time in such a pointless pursuit, unless...Isaac? You haven't done it! You have made no progress! The dream of the alchemists simply isn't possible!

(HOOKE casts his eye around)

But what if it were? Let's try to remain open-minded and take that as a supposition. If it were possible, who would be the man to unlock the secret? Who would possess the skill and the knowledge? Who would have the single-minded devotion to lock himself away for year upon year and dedicate his life to the task? Newton. And only Newton. Am I right?

(NEWTON stands mute)

What's in the furnace, Isaac?

NEWTON

A pointless experiment.

HOOKE

Tell me! I have to know! Have you done it? Are you on the verge of doing it?

NEWTON

There is nothing to tell.

HOOKE

Damn you! I will know the truth! And if you have done it I will have my share! More than my share! We can call it a fair trade for stealing my work on gravity! You may not be the sort of man who appreciates all the delights that gold can buy, but I am! Either you reveal to me what you are doing, or I walk out of here with the words "Isaac Newton--heretic and alchemist" on my lips for all the world to hear. And damn the consequences! Tell me!

(NEWTON pulls a corked glass flask from a shelf. The flask is filled with red liquid. NEWTON pulls out the cork, throws it to the floor, and advances on HOOKE.)

HOOKE

What is that?

NEWTON

Everything that you desire.

HOOKE

What? What's in the flask?

NEWTON

It's one of the dreams of the alchemists, Hooke. The elixir of everlasting life. Come, have a taste.

HOOKE

Keep that away from me!

(as NEWTON stalks him)

Isaac! Isaac, stop this! I wish to go!

NEWTON

And so you shall.

(NEWTON grabs HOOKE, spins him around,
and gets him in a choke-hold.)

HOOKE

For God's sake, Isaac! Your secrets are safe with me! I
swear to you!

NEWTON

They will be safe with you. You crooked little fool!

(As NEWTON tilts the flask towards
HOOKE's mouth, LOCKE bursts in.)

LOCKE

Isaac! What in God's name are you doing?

NEWTON

Murdering Hooke.

(LOCKE pulls the flask from NEWTON's
hand as HOOKE scrambles away.)

HOOKE

You saw him! He tried to murder me! He even admitted it!
You're a witness!

LOCKE

Hooke, I swear to God it's as if the Devil himself crawls
within you sometimes!

HOOKE

Me? I'm perfectly innocent! I only came here to engage
Professor Newton in a harmless consultation! And you see how
he treats me!

LOCKE

I knew you were up to something when you left the Royal
Society in such haste. Isaac, I did try to prevent him from
coming here. I'm sorry.

NEWTON

Well, now that you are here, kindly escort Dr. Hooke back to
London.

HOOKE

Oh no! Not yet! There's something you should know, Locke. Our esteemed friend here is an alchemist! It's true! Just look around his laboratory! He must have the largest collection of alchemical books in the country! And he refuses to say what he is trying to do!

LOCKE

I trust Isaac to study what he wishes to study. The fruits of his past labors entitle him to that consideration.

HOOKE

But that isn't all! He's also a heretic! Did you know that he denies the divinity of--

LOCKE

I want you to stop all this nonsense, Hooke! Yes, Isaac has his idiosyncracies. For God's sake, so do you.

HOOKE

What are you talking about?

LOCKE

Pray don't make me go into the specifics.

HOOKE

I haven't the faintest idea to what you're referring! I happen to be a paragon of--

LOCKE

Just how many whores do you visit a week, Hooke?

HOOKE

Whores? Me? That's outrageous!

LOCKE

Not particularly. What I think might be deemed more outrageous is that you keep a diary in which you meticulously record the quantity and quality of each and every one of your ejaculations.

HOOKE

I...I happen to have a scientific mind when it comes to all human endeavors. As for my choice of female companions, let me ask you this, why is lovemaking the only human enterprise in which we look down upon the seasoned professional? You're a philosopher, Locke. Answer me that.

NEWTON

I'm not certain I understand. You keep an actual diary in which you--

HOOKE

At least I have enjoyed the favors of women! Can you say the same, Isaac? Or perhaps your interests don't run in that direction. Who was that young man who used to follow you around like a lost puppy? Fatio de Duillier, wasn't it? "Newton's ape" as he was popularly known. You two seemed very close. I don't doubt that he offered many penetrating insights into your...oh yes, research.

LOCKE

Hooke! For God's sake, have you no decency?

HOOKE

No. That's just one of my many charms. Well, I must be off. This has certainly been an interesting visit. I wish you all the best with your work, Isaac. I think I would do well to come back soon and observe your progress. Until then.

(HOOKE exits.)

LOCKE

I'm sorry, Isaac. I'll do my best to keep him away. Isaac? Pay no attention to Hooke's babbling.

NEWTON

Fatio was known as "Newton's ape?"

LOCKE

Your relationship with Fatio did excite comment in some quarters. He being much your junior and...so on.

NEWTON

What Hooke was implying--

LOCKE

Is none of my concern. Or anyone's concern.

NEWTON

Are you certain of that?

LOCKE

What do you mean?

NEWTON

Brilliana Cavendish is what I mean. Is that why you sent her here? You fear I may have unnatural tendencies? Is that why you're endeavoring to embroil me with women?

LOCKE

Embroil you with...you've seen Brilliana?

NEWTON

Despite what you and others may think of me, I have kept myself chaste and pure for my entire life.

(MORE)

NEWTON (cont'd)

I am not like Hooke, prowling through one whorehouse after another! And I am not one of those seducers, waxing worse and worse, deceiving and being deceived, their lusts heaping up inside of them, generating, burning, putrefying inside of them...

LOCKE

Isaac--

NEWTON

The way to chastity is not to struggle with incontinent thoughts, but to avert the thoughts by some employment or by reading or meditating on other things. The man who is always thinking about chastity will always be thinking about women. You've heard of the cloistered monks, I'm sure, who for want of sleep and food, the body is put out of its due temper and their fancies become unduly invigorated. They incline, by degrees, towards a delirium in which they see apparitions of women and their shapes...

LOCKE

Isaac, please--

NEWTON

I must work...don't you see? I must work.

(NEWTON sits on the stool at his table and takes a piece of cloth and a stick. He wraps the cloth around his head and uses the stick to twist the cloth more and more tightly.)

LOCKE

What are you doing? Are you unwell?

NEWTON

I have a most intolerable headache. This is the only remedy that abates it somewhat. Now please go. Just leave me alone so that I might work. Please, John...please.

(LOCKE exits and NEWTON struggles to rise, knocking bottles on the table over. He takes a few steps towards the athanor, then collapses to the floor. Lights shift to night. A SUCCUBUS and a nightmare version of HOOKE enter. As HOOKE preaches, the SUCCUBUS echoes his words, making love to NEWTON before tearing at NEWTON's throat and liver with her teeth.)

HOOKE AND SUCCUBUS

It is the Green Lion [the Lion, Lion...]
 That shall devour the sun [the sun, sun...]
 It is the menstrual blood [the blood, blood...]
 Of the sordid whore [the whore, whore...]
 It is the ouroboros [the ouroboros, ouroboros...]
 That devours itself [itself, itself...]
 For eternity [eternity, eternity...]
 Self creating [creating...]
 Self destroying...

(the SUCCUBUS attacks NEWTON, who cries out)

There is no room...
 In the top of the house...
 In the bottom of Hell...
 What is he good for? [What is he good for?]

(HOOKE and the SUCCUBUS fade into the shadows and exit as NEWTON sobs in despair.)

NEWTON

God help me! God help me...

(NEWTON raises his face to the ceiling.)

NEWTON

For then shalt thou lift up thy face, thou shalt be steadfast, and shalt not fear. Because thou shalt forget thy misery, and remember it as waters that pass away. And thine age shall be clearer than the noonday; thou shalt shine forth, thou shalt be as the morning.

(NEWTON slumps back to the floor and falls asleep. As morning light filters into his rooms, MRS. GRUNDY enters with a breakfast tray.)

GRUNDY

Cooee, Professor! Breakfast! I've got two lovely poached eggs for you, sir. Very easy to digest. And sausages, of course.

(she peeks into the lab, and seeing the prostrate NEWTON, hurries over to him. NEWTON opens his eyes)

Good morning! Lovely day out there.

(she helps him up and guides him back into his rooms)

You should take a nice walk, that's what you should do. Have some breakfast and then treat yourself to a nice breath of fresh air. Professor? Mr. Newton? I've put out your breakfast, sir.

NEWTON

I dreamt of a green lion devouring the sun. Dreamt of the menstrual blood of the sordid whore. Dreamt of the ouroboros, the snake that devours itself for eternity.

GRUNDY

Oh dear. Do try to eat something, Professor.

(MRS. GRUNDY exits. NEWTON picks up a book, then notices the curtain above his bed billowing with the wind. He puts the open book down and goes over to touch the curtain.)

NEWTON

Brilliana...

(BRILLIANA advances out of the shadows. She wears a white dress.)

BRILLIANA

Yes?

(NEWTON turns to see her)

I said I would return. May I?

(NEWTON nods and she comes further into the room, then picks up the book NEWTON was studying.)

BRILLIANA

An illustration of a hermaphrodite?

NEWTON

How would a lady know of such things?

BRILLIANA

I can't speak to what a lady might know. But a hermaphrodite is half man and half woman. It represents a union of the gods Hermes and Aphrodite, doesn't it?

NEWTON

Yes.

BRILLIANA

Why are you studying it?

NEWTON

The figure of the hermaphrodite appears repeatedly in the most ancient texts. These texts suggest that at one time men and women were one being, and that the desire of men and women for one another is simply a desire to become whole again. To become one through the act of...as it says in Genesis, "a man will leave his father and mother to be united with his wife, and they will become one flesh."

Fascinating.
BRILLIANA

(NEWTON takes the book from BRILLIANA
and puts it back on the shelf.)

NEWTON
I see that your period of mourning has passed.

(BRILLIANA shows off the dress.)

BRILLIANA
Do you like it?

NEWTON
Most becoming. As it happens...

BRILLIANA
Yes?

NEWTON
May I offer you some orange peel tea? I find it refreshing.

BRILLIANA
No, thank you.

NEWTON
Am I to attribute your presence here to the fact that you
have read the *Principia*?

BRILLIANA
Yes.

NEWTON
If by that you mean that you forced your eyes to run over the
pages, I compliment you on your perseverance if nothing else.

BRILLIANA
I read it. And I made myself understand it. And I read the
other works you mentioned as well. And made myself
understand them. I did everything you asked.

NEWTON
You make a poor jest, madam.

BRILLIANA
You think that little of me? Or is it for women in general
that you reserve your scorn?

NEWTON
This is absurd.

BRILLIANA
Why?

NEWTON

You claim to have read my work?

BRILLIANA

Yes.

NEWTON

And understood it?

BRILLIANA

I believe so, yes.

NEWTON

Very well then. Tell me this. What kind of curve would be described by the planets supposing the force of attraction towards the sun to be reciprocal to the square of their distance from it?

BRILLIANA

An ellipse.

NEWTON

How can you possibly know that?

BRILLIANA

I read your book. How could I not?

(In a state of some excitement, NEWTON pulls a wooden ball off a shelf.)

NEWTON

This ball. Calculate for me the gravitational force exerted on it by the Earth as compared to the gravitational force the Earth exerts upon the Moon.

(He hands her the ball.)

BRILLIANA

Well, you say that the forces which keep celestial objects in their orbits must be reciprocal to the squares of their distances from the centers about which they revolve.

NEWTON

Yes, yes! The calculation!

BRILLIANA

Then if the Earth is eight thousand miles in diameter, this ball is four thousand miles from the center of the Earth. The moon is calculated to be 240,000 miles away, so it is sixty times as far away from the center of the earth as the ball. Gravitation diminishes by the square of the distance, therefore the ball is subject to a gravitational force of sixty squared, or 3,600 times that experienced by the moon.

(MORE)

BRILLIANA (cont'd)

(she drops the ball to the
floor as NEWTON gapes at her)

Am I correct?

(NEWTON nods as BRILLIANA comes
closer to him)

It doesn't seem all that difficult to understand...the closer
two objects become, the greater the attraction between them.
Does that about sum it up?

(NEWTON nods)

So I may stay just a bit longer?

(NEWTON nods again)

Good. Oh, and I brought you something.

(She produces an object wrapped in
velvet and tied with a ribbon. She
undoes the ribbon and the velvet falls
away to reveal a bright red apple. She
hands the apple to NEWTON. Lights
fade.)

END OF ACT ONE