David Meyer, one of three actors — including a woman — who play different facets of Isaac Newton in a play about his life.

J. GRAMSTON

THEATRE

Newton's rainbow

A biographical play reveals the odd character of the father of gravity, finds **Philip Ball**.

Isaac Newton perplexes and fascinates both as a transitional figure in the history of science and because he was a very odd man. The difficulty has been in distinguishing the two. Historians still struggle to dispel portrayals of him as a man torn between science and religion, or flitting from mathematical physics to superstitious alchemy. It was not, however, the coexistence of these things in Newton's agenda that made him odd — that was not unusual in his time — but the way he lived, isolated from intimate relationships, sensitive to every slight, vain yet so indifferent to posterity that he could barely be persuaded to write the *Principia*.

All this makes him attractive and challenging to biographers, among them the leading science historians Richard Westfall and A. Rupert Hall, and science writer James Gleick. It has also inspired some more inventive explorations of his life story, the latest of which is *Let Newton Be!* This play by Craig Baxter was commissioned by the Faraday Institute for Science and Religion at the University of Cambridge, UK, after the institute's director saw Baxter's 2007 play about Charles Darwin. The production has benefited from the input of historian Rob Iliffe, head of the Newton Project to place the scientist's works online, and the astrophysicist John Barrow, among others.

To conjure up the mercurial mathematician, Baxter uses mostly Newton's own words and those of some of his contemporaries, such as his rival and critic Gottfried Leibniz. Newton is the only character in the piece, apart from brief appearances by the likes of Leibniz and Edmond Halley, and is played by three actors, one a woman. It sounds like a gimmick, but it is actually a clever device that allows us to see different facets of the man.

Let Newton Be!
WRITTEN BY CRAIG BAXTER; DIRECTED BY PATRICK MORRIS.
London, 28 March. Now touring North America until 30 April.

The play's structure is largely chronological. We see Newton as a boy in the family home at Woolsthorpe in Lincolnshire; as an undergraduate at Trinity College, Cambridge; then as Lucasian professor of mathematics, a post to which he was appointed in 1669 aged 27. We see him take his retractable telescope to the Royal Society and then, stung by what he perceives as the antagonism of the London virtuosi, retreat into religious exegesis until Halley cajoles him into writing down his proof of elliptical planetary orbits, a treatise that expands into the *Principia*. Fêted and now somewhat pompous, he becomes warden of the Royal Mint and president of the Royal Society.

The original material is well used. There is a reconstruction of Newton's famous prism experiment, or roughly so — this *experimentum crucis* of around 1666, when he reconstituted white light from the spectrum, is notoriously difficult to reproduce. We are introduced to Newton's obsessive, sometimes surreal lists of the sins he committed: "I lied about a Louse." The only time his words turn into a lecture is intentional, when we witness one of the optics lectures that Newton was obliged to give as Lucasian professor, at which he proves to be hilariously inept.

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The play delivers an impressive quantity of Newton's thought. In particular, it emphasizes just how much of his work was religious. Newton considered this to be his central mission, with the seminal scientific works on light, motion and gravity almost being tossed off before breakfast. The idea that exploring the natural world allowed a deeper appreciation of God's wisdom and power was the position held by most seventeenth-century scientists, and their defence against accusations of materialistic atheism. Newton was anything but a materialist. That he held gravity to be an occult force acting at a distance was precisely what Leibniz considered wrong with his theory, whereas for Newton, this force was actively sustained by God.

But I am not sure how much of this material would be comprehensible to anyone coming to Newton anew. It is characteristic of the play's intelligence that we do not get any nonsense with falling apples. But neither are we told, say, what distinguished Newton's ideas on gravity from the many that went before, especially René Descartes' vortices and the belief that it is a form of magnetism, both views that Newton shared at some point. And the play lacks a narrative drive — there is no tension, nothing to be resolved, for in the end it is still a kind of biography. But that was its brief, and it is probably a more enjoyable hour and a half with Newton than anyone ever had in his lifetime. ■

Philip Ball *is a writer based in London. His latest book is* Unnatural.