Isaac's Eye

by Lucas Hnath

Theatre Pro Rata
February 2-17, 2019
Performing at Gremlin Theatre

The play
Isaac Newton is one of the towering geniuses of western science: apples falling from trees, the laws of motion, the calculus. He was also a bit on the eccentric side: he stuck a needle into his tear duct to try to determine how the eye sees light, for example. Playwright Lucas Hnath takes this fact and runs with it, creating a play in which the ambitious young Newton seeks a mentor in Robert Hooke of the Royal Society. Hnath plays somewhat fast and loose with history (and lets us know he's doing that from the outset), but still raises important questions about the search for knowledge. The story is historical, the language is contemporary, and the play both delights audiences and gives them a lot to think about.

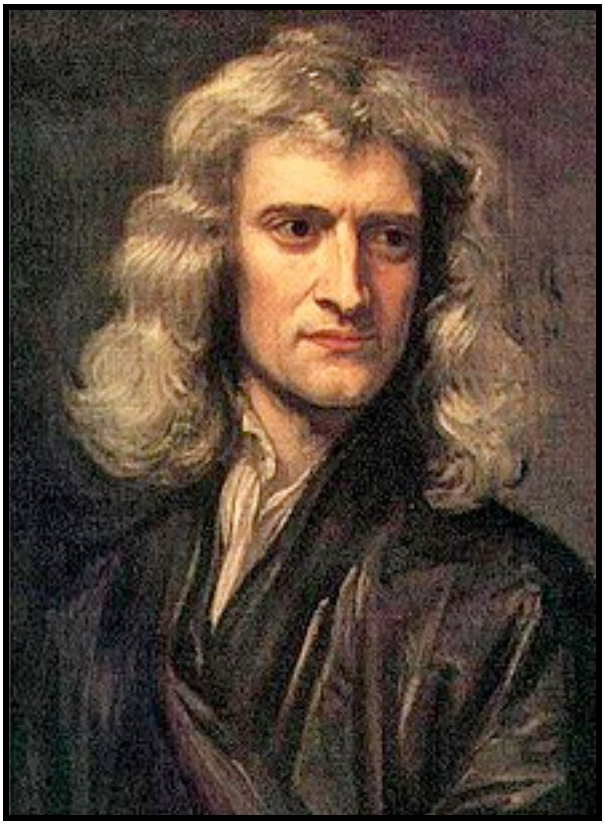
The playwright


photo: Beowulf Sheehan

Lucas Hnath was born in 1979 in Orlando, Florida. He received his BFA and MFA degrees from New York University, where he is an assistant professor in the Department of Dramatic Writing. His work includes more than a dozen full-length plays, which have been produced both nationally and internationally. He is a member of the Ensemble Studio Theatre and New Dramatists, and is the recipient of a Guggenheim Fellowship (2015), an Obie Award for Playwriting (2016), a Steinberg Playwright Award (2017), and a Windham Campbell Prize (2018).

More info:
https://en.wikipedia.org/wiki/Lucas_Hnath
http://windhamcampbell.org/2018/winner/lucas-hnath

Resources
Wikipedia includes long articles on both Isaac Newton and Robert Hooke.



Portrait of Newton by Godfrey Kneller

Newton and his times
The Newton Project
http://www.newtonproject.ox.ac.uk

Hooke's critique of Newton's theory of light and colors (1672)
http://www.newtonproject.ox.ac.uk/view/texts/normalized/NATP00005

Newton site at Cambridge University Library
http://www.lib.cam.ac.uk/exhibitions/Footprints_of_the_Lion/private_scholar.html
Scroll down the first page to see the illustration of Newton's experiment with his eye and a needle (click on it to see the full page).

The Clockwork Universe: Isaac Newton, the Royal Society, and the Birth of the Modern World by Edward Dolnick (New York, NY: Harper, 2011)

The Man Who Knew Too Much: The Strange and Inventive Life of Robert Hooke by Stephen Inwood (London: Macmillan, 2002)

The Curious Life of Robert Hooke by Lisa Jardine (New York: Harper-Collins, 2004)

Out of the Shadow of a Giant: Hooke, Halley, and the Birth of Science by John Gribbin and Mary Gribbin (New Haven, CT: Yale University Press, 2017)
Explores the lives of these two men, and what impact they might have had if Newton hadn't existed.

Isaac the Alchemist by Mary Losure (Ann Arbor, Mi: Candlewick Press, 2017)
Children's biography of Newton.

Related fiction
Ghostwalk by Rebecca Stott (New York: Spiegel & Grau, 2007). Stott explores a mystery related to Newton's interest in alchemy.

Dark Matter: The Private Life of Sir Isaac Newton by Philip Kerr (New York: Crown Publishers, 2002). Sir Isaac Newton plays detective in this novel.

Physics
On the Shoulders of Giants: The Great Works of Physics and Astronomy edited by Stephen Hawking. (Philadelphia, PA: Running Press, 2002)

Seven Brief Lessons on Physics by Carlo Rovelli (New York: Riverhead Books, 2016)
An introduction to the important ideas of 20th century physics.

From *Out of the Shadow of a Giant: Hooke, Halley & the Birth of Science* by John Gribbin and Mary Gribbin (2017)
"How can we sum up the relative achievements of Hooke, Halley and Newton, and their contribution to the scientific revolution? Ironically, in view of Newton's religious beliefs, the best approach is to treat them as a trinity. Hooke had the greatest physical insight, and even if we set to one side his other scientific achievements (microscopy, geophysics, and the rest), he was the first person to realize that the same laws of physics apply in the Universe at large as

here on Earth, and to appreciate in particular that the inverse square law of gravity is a universal force and that it acts centripetally; Newton was a mathematical genius (his other activities, alchemy and theology, are best set to one side) who codified the new physics by providing a set of equations to describe the behaviour of everything from balls rolling down slopes to planets orbiting the Sun; Halley (apart from his other achievements as an astronomical observer and geophysicist) was the first person to apply those equations to new problems, rather than 'merely' explaining past observations, and use them to make successful predictions, the ultimate (indeed, only) test of any scientific theory. None of them deserves to be remembered in the shadow of any of the others, but if push came to shove, we would certainly place Hooke 'first among equals'."