The Invention of Science: A New History of the Scientific Revolution
By David Wootton, HarperCollins Publishers, New York, 2015, 785 pages,
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We often think of invention as the product of scientific inquiry, but it doesn't seem as intuitively obvious to think of science itself as something that was invented. Yet that is exactly how David Wootton presents the history of the Scientific Revolution in his new book, *The Invention of Science: A History of the Scientific Revolution.*

Although it certainly isn't light reading, Wootton's newest work is jam-packed with information. It reads like a high-energy history textbook. Wootton sets out to provide "A New History of the Scientific Revolution," and certainly does so. He has found a way to reinvigorate this well-trodden tract of scientific history.

He opens with the claim "modern science was invented between 1572, when Tycho Brahe saw a nova, or new star, and 1704, when Newton published his *Opticks,* which demonstrated that white light is made up of light of all the colors of the rainbow." But despite this claim, Wootton, like any good historian, does not start at this proposed beginning, Brahe's observation of a nova, but rather with the first tool-making humans—2 million years ago. He gives a brief overview of the initial development of what might broadly be considered scientific progress in the early days of human civilization—nothing revolutionary, other than that it laid the groundwork for future innovations.

He then delves immediately into the Scientific Revolution of the 1600s—the revolution that he claims started with Brahe. It's important to keep in mind that when Wootton refers to science, he is not referring broadly to the many manifestations of human ingenuity, but rather the method of science, which he refers to as "the research programme" and "the experimental method." That is, science as a series of steps, starting with a hypothesis, developing an experiment to test it, doing the experiment, recording and analyzing the results, and repeating the process. The most important part of scientific discovery is reproducibility. If your results can't be reproduced, the theory or development you are proposing lacks the ability to be proven.

One of the statements I found most compelling in Wootton's book came in the last chapter: "science offers reliable knowledge (that is, reliable prediction and control), not truth." This is something we often forget about science, that it doesn't always offer us immovable truths about the world (and the universe) we live in, but it helps us understand it.

Review by Jeanette S. Ferrara
NYU School of Journalism