



## Editorial

### *Don't Be Like Ike*

What is a fact, really? Elske de Waal and Sjang L. ten Hagen ask us to consider that question in their contribution to this issue. The question, of course, is a historical one. The precise way people have understood facts has varied from era to era, and from person to person within eras—as de Waal and ten Hagen's discussion of Ernst Mach and Albert Einstein illustrates. How we decide when we have a fact on our hands influences what we believe we can learn from it. The history of the scientific fact is therefore central to other big questions in the history of physics, such as the relationship between theory and evidence. We could make the same observation about the historical fact. That concept too has shifted over time, and it is no simple trick to move from a historical fact to the lessons we should learn from it.

Consider a particular fact that has been making the rounds since the world went into lockdown several months ago: Isaac Newton conducted the critical preparatory work for his contributions to calculus, optics, and gravitation during 1665–1666. That year, as it happens, was wracked by bubonic plague. Much of England observed isolation practices similar to our own—in spite of which nearly a quarter of London's population would perish. What should we learn from the fact of Newton's productivity under isolation?

Some have held up Newton as an inspirational example: the heroic scientist who used the quiet of isolation to forge ahead with some of his best work. Newspaper op-eds and social media posts have encouraged us to be like Ike, to make lemonade of COVID lemons by tuning out the news cycle and focusing on productivity and self-improvement. Such commentators are approaching the historical fact as a template, as a parable that we can use as a salutary guide to action by swapping a few details in and out.

But historical facts tell us little in isolation and so are rarely suited to such manipulation. Among the supplementary facts we should consider about Newton when evaluating his behavior under lockdown have to do with his personal characteristics. The kindest way to describe Newton would be to say that he was often uneasy in the company of others, a discomfiture that also marked his intellectual relations with his contemporaries. He has rightly inspired a prodigious outpouring of historical scholarship focused on his intellectual accomplishments, but he has also merited a popular biography subtitled “The Asshole Who Reinvented the Universe.” Contemporary accounts paint him as cantankerous,

egotistic, and uncharitable. These traits might make a person well adapted to laboring away alone and unperturbed amid unfolding chaos and death, but they are hardly traits one would hope to find widespread in one's community, scientific or otherwise.

We also need to consider relevant facts about our own historical moment. Newton lived at a time when the practice of natural philosophy was a privilege afforded to a small cadre of wealthy, well-born men, who enjoyed the luxury of working at whatever pace suited them, often on their large family estates, which was indeed where Newton retreated during the plague. Today, science is a vocation, one impelled by the broader cultural imperative to increase efficiency, productivity, and growth at all costs, and it is nearly always carried out in collaboration with many others in laboratories sponsored and maintained by institutions. Within that context, Newton threatens to set a dangerous example, heightening the incessant pressure on researchers that leads them to neglect their wellbeing and, often, to do poor work.

The lessons here are both general and particular. Historical facts, in general, might well have lessons for our present moment, but finding those lessons will require more than translating anecdote into advice; it will require identifying the other salient details that inform a clear-eyed perspective on our historical facts. Armed with such a perspective, we can see that Newton in particular, despite his productivity, is a poor model for conduct under quarantine. This is a time to reflect on how we should weigh productivity against other virtues, especially a virtue that Newton himself never quite mastered—kindness.

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