What has modified our traditional view of Galileo in recent times?

In his own lifetime Galileo was the centre of violent controversy; but the scientific dust has long since settled, and today we can see even his famous clash with the Inquisition in something like its proper perspective.

But, in contrast, it is only in modern times that Galileo has become a problem child for historians of science.

The old view of Galileo was delightfully uncomplicated.

He was, above all, a man who experimented: who despised the prejudices and book learning of the Aristotelians, who put his questions to nature instead of to the ancients, and who drew his conclusions fearlessly.

He had been the first to turn a telescope to the sky, and he had seen there evidence enough to overthrow Aristotle and Ptolemy together.

He was the man who climbed the Leaning Tower of Pisa and dropped various weights from the top, who rolled balls down inclined planes, and then generalized the results of his many experiments into the famous law of free fall.

But a closer study of the evidence, supported by a deeper sense of the period, and particularly by a new consciousness of the philosophical undercurrents in the scientific revolution, has profoundly modified this view of Galileo.

Today, although the old Galileo lives on in many popular writings, among historians of science, a new and more sophisticated picture has emerged.

At the same time, our sympathy for Galileo’s opponents has grown somewhat.

His telescopic observations are justly immortal; they aroused great interest at the time, they had important theoretical consequences, and they provided a striking demonstration of the potentialities hidden in instruments and apparatus.

But can we blame those who looked and failed to see what Galileo saw, if we remember that to use a telescope at the limit of its powers calls for long experience and intimate familiarity with one’s instrument?

Was the philosopher who refused to look through Galileo’s telescope more culpable than those who alleged that the spiral nebulae observed with Lord Rosse’s great telescope in the 1840s were scratches left by the grinder?

We can perhaps forgive those who said the moons of Jupiter were produced by Galileo’s spyglass if we recall that in his day, as for centuries before, the only source of power for polishing rock until it shone, was human effort; and if a single curved glass would distort nature, how much more would a pair of them?

The old view of Galileo was of a man who concluded nature and the laws of physics from experiments, while the modern view of Galileo is more sophisticated.

He justifies Galileo’s contemporaries’ failure to see what he saw because his views and methods were so revolutionary that his contemporaries could not appreciate them.

Lie detector tests have been the subject of quite a violent controversy over the years.

They are both very determined women, so there is rather a clash of personalities.

When you are very young, it is sometimes difficult to see events in their proper perspective.

Martin Luther King was a man who despised the prejudices of racist American politicians.

We all experienced the same consciousness of danger when we entered the room.

The information I have read this week has profoundly modified my opinion of the man.

Do you think that, for once, you could consider the consequences of your actions?

That new invention quite clearly has potential for either good or evil.

Because the soldier left his post and wandered away for a short time, he was accused of culpable negligence.

He showed me a weird-looking contrivance designed to shear sheep.

We laughed when we looked at ourselves in those strange wavy mirrors that distorted everything.

A closer study of Galileo and his life has modified the old view of the man and his work.

A new, more sophisticated picture of the man has emerged, and our sympathy for his opponents has grown.

Of course, he is remembered for his telescopic observations, but we can hardly blame those who could not see what he saw; they did not have his experience with the apparatus.

And we should perhaps also forgive those who thought that his discoveries were the products of the distortion of curved glass.

New ideas can never be readily accepted by those who cling to old beliefs.

It always takes time for any new idea to be accepted by people in general, often longer for it to be accepted by those who insist on clinging to old beliefs.

There are still a few people, even now, for example, who believe that the world is flat.

New ideas have always been, and will always be, resisted for several reasons.

Some people express the concern that what is new may not necessarily be better, while others reject a new idea from pure prejudice or a simple fear of the unknown.

In the past, the views of Aristotle and Ptolemy lasted for centuries before they were replaced by other ideas.

Many new ideas, which are resisted when they first make their appearance, are gradually assimilated until they finally become commonplace.

In the twentieth century alone, the whole concept of manned flight took many years to be accepted.

And in the past, the observation by Copernicus that the earth goes round the sun (and not the sun round the earth), the views of Galileo, Kepler’s ideas on planetary motion, Darwin’s idea of evolution and Freud’s ideas on psychology all took time to be accepted — and even now there are those who argue against the ideas put forward by Darwin and Freud.

There are, however, exceptions to the fact that new ideas are not readily accepted.

Some great ideas have been accepted almost without question from the time they made their appearance; for example, Newton’s ideas on gravitation were acclaimed in the 18th century just as Einstein’s ideas on relativity were acclaimed in the twentieth.

Perhaps twenty-first century man will be much more open to new ideas, but there will always be those who cling to their old beliefs and will never be convinced by new ideas.

To build houses with the local stone was difficult.

Reading is one of the most important skills a young child must master.

To eat meat with your fingers is considered bad manners in that country.

Smoking is completely forbidden in many restaurants in Britain now.

The problem of drawing this on paper is the problem of representing a three-dimensional object in a single plane.

The mountain rises sharply from the plain.

You can always hear a lot of popular songs on radio request programs.

Some composers, like Bartok, made use of folk music.

Those children need a lot more than sympathy now that they’ve lost their mother.

His affection for his family is obvious.

Don’t blame me for missing the train.

You didn’t allow enough time.

He was falsely accused of stealing.

I offered to pay him for his help, but he refused.

The secretary denies all knowledge of the missing letter.

You’re bound to get one or two scratches in the paintwork as soon as you begin using the car.

We listened to the scrape of heavy furniture being dragged across the floor upstairs.

Have you settled down in your new house yet?

I settled down in an armchair to read a book.

I shall settle my account next week.

We must settle this problem once and for all.

His ancestors settled in Boston in the 1850s.

Whatever happens, the old man will keep on living in the farmhouse.

When my father retires, I am going to carry on the family business.

She doesn’t want to go on being a secretary all her life.

After we had stopped for a rest, we drove on for another hour before we stopped again.

After crossing the bridge, we walked on until we reached a small hut on the side of the hill.

To use a telescope calls for long experience.

I’ll call you on my way home from work.

I’ll call you up at the office tomorrow morning.

It’s impossible to have a party tomorrow.

Why don’t we call the whole thing off?

May I leave this suitcase here?

I’ll call for it later.

I think you’d better call in a doctor.

Before Galileo, people believed what they read in Aristotle and Ptolemy.

The old view of Galileo was delightfully uncomplicated, probably because we considered his achievements from only one point of view.

Before we had a better understanding of the period, we probably were over-critical of his opponents.

We have to conclude that in Galileo’s time, optical instruments were rather primitive.

The scientific dust settled a long time ago.

Before modern times, Galileo was not a problem child for historians.

Before Galileo, no one had turned a telescope to the sky.

Can we blame those who looked and failed to see the things that Galileo saw?

Today, we can see even his famous conflict with the Inquisition.

He was, above all, a man who had a low opinion of the prejudices of the Aristotelians.

A closer study of the evidence has profoundly altered this view of Galileo.

The old Galileo lives on in many widely read and admired writings.