

## Creating Experiments in History

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I am reading "Introduction to Galileo's Dialogue", specifically, Albert Einstein's forward to it.

Motion was related to astronomy. Galileo searched for data upon the sky to relate them to what's going on on the earth. The spherical shape of the earth, as explained by Aristotlian theory, is because the center point inside the earth, which pulls everything around it. But how come the venus and other heavenly bodies have the same spherical shape since they are not center points in any case.

Yesterday night when I was thinking about acceleration, I thought of what was going on about acceleration, and then I sort of realized that here is some issue of time.

"Only experience and careful reflection are accepted by him as criteria of truth." ----  
Albert Einsten

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### A totally different look at motion

When I was thinking about the phenomenon of throwing an object straightly upward, I realized that I was trying to put this phenomenon into a conceptual frame, that says I was trying to analyze it. In general, what causes its upwards movement, what makes it stop going upward at one point and turn downwards? Especially when I was aware of the ecocentrism theory at that time in history when people consider the earth, the center of the earth as the destiny of anything in the world. Bearing these in mind, I was even able to understand the importance of exploring free fall. It was challenging the self-evident proposition about the center of the earth. It was so closely related to astronomy observation.

And such a different look, a look to view ordinary things in an extraordinary way, is so precious even among people of modern times. Like me. Why is this kind of look highly valued? Or is it? Should it be? One thing for sure, as Elizebath answered my question over the value of modern class-blowing practice, people enjoy the work and the different look. People do not do science for science's sake; underneath the splendid aura of scientific achievement, it is the deep satisfaction of pure curiosity. The simplest motivation is to use the potential human people are endowed with.

### I experienced the "Galileo Phenomenon"

I am reading *Galileo's Experimental Research* by Settle. The psychologist's study of "Galileo phenomenon" reveals that Galileo might have released light objects a little bit earlier than the heavy object while he was doing the free fall experiments at his early stage exploring free fall. I sensed that the different balls in my hand might be given different force when I was throwing them upwards. My experience might not be exactly the same with Galileo's since he was letting them go downwards. And because I was mainly worrying that I might not use the same amount of force, instead of the releasing time. But, well, I took into account of the factor of experimenter, anyway. That says I was aware that my experiments needed to be refined. =)

While reading this article I was very glad, which also because that I noticed the relationship among Galileo's experiment, though I concede that was partly owing to Albert Einstern's forward.

### I was wrong about why the shape of the earth was spherical

Maybe it was not because that it was orbitting around the sun, as I expounded during class, rather it is the spinning of the earth itself that matters. That was the reason that physicist student, to whom I was resorting, named to explain the fact that the earth was elliptical, with the equator round as the fattest, and part of the substance of the polars were missing.

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