

NOTE

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Was the American Revolution Completed Before the War Began?

Steven Levy

I am required by the Lexington Public Schools to teach the American Revolution as part of my fourth-grade social studies curriculum. There are textbooks that predictably recount the acts and tariffs imposed by the British, the reactions of the colonists, the succession of battles, and the eventual winning our independence. There is some value in learning these facts. They become part of the national lore that we share as Americans. But if we stop with the “tit for tat” events that culminated in a war, our students will gain only the most superficial understanding of what the American Revolution was about. I wanted to inspire my students to find out what the revolution meant, the part it played in the evolution of our civilization, and its relevance to their own lives. I needed a question that would open the door to understanding on a deeper level. My first step was to read about the American Revolution myself.

FINDING THE GRAND QUESTION

In my reading, a jewel of a question gleamed in a letter by John Adams. It promised to open the many facets of exploration and discovery that would lead us to the deeper aspects of what the revolution was about. Adams wrote in 1818, “The Revolution was completed before the war ever commenced. The real American Revolution was in the minds and hearts of the people. Their changing opinions, values and sentiments, that was the real American Revolution.” What did he mean by this perplexing paradox: the

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Revolution completed before the war ever began?! This incongruity is the kind of puzzle that can be reconciled only from deep levels of understanding. What was changing in the minds and hearts of the people? is the kind of grand question that launches a complex investigation. Grand questions like this have no single right or wrong answer. They compel viewing the topic from multiple perspectives. They lead us back to original documents in our research. They provide opportunities for the students to develop skills and master content in the course of the investigation.

When I asked my students what they thought of when they heard the words *American Revolution*, I heard nothing but images of "soldiers," "Redcoats," "muskets," "Paul Revere," "the rockets' red glare, the bombs bursting in air." So when I put this quotation from John Adams before them, they were quite puzzled. They had only a vague idea what Adams was talking about. The vocabulary was new for most of them, and the concepts quite sophisticated. I gave them words like *revolution*, *sentiments*, *affections*, *opinions*, and *commenced* for their spelling words the first week. They learned the definitions and wrote the words in sentences.

Then I told them their challenge was to figure out what John Adams meant. I thought this approach would lead them to discover the genius of the American Revolution, which I saw emerging in the tension between authority and freedom, between dependence on the powers that be and the desire to decide for oneself. All the ways that we might see the American Revolution, all the lenses that highlight different aspects of it, share the development of a powerful sense of self. In the late 18th century, the importance and value of the individual was supplanting the prevailing loyalty to the established hierarchies of authority and power. A person's identity was beginning to be expressed as an individual rather than through the authorities to which he or she was subject.

LEARNING FROM THE PAST

What was changing in the minds and hearts of the people? To explore this change, we looked back to the preceding centuries to see what the relationships were like between the individual and the authorities. We took a brief look at medieval life, in which the common people were totally bound by the political, economic, and religious governance of the federal system. There was no room for individual expression. From there we went on to study the lives of leading personalities from the Renaissance. Of particular interest were persons whose lives reflected the genius of the times. Where

could we find seeds of this new sense of self, of the value and dignity of the individual, that would flower in the ideals of the American Revolution? Galileo stood out in science, Martin Luther and Joan of Arc in religion, Oliver Cromwell in politics, and Leonardo da Vinci in the arts. Their biographies are vivid illustrations of individuals who stood up against the authorities, championed new frontiers, and paid a significant price. They demonstrated on a personal level the dramatic change in the minds and hearts of the people that would later be manifest in society, where individual dignity and independence became prizes worth dying for.

Galileo

First I told my class about Galileo, who was born in Pisa, Italy, in 1564. As a child, he loved to tinker, making little toys with levers and pulleys that fascinated his sisters. As a young man he wanted to be a monk. However, his father hoped Galileo would become rich and replenish the dwindling family fortune, so he sent him to medical school to become a doctor. The school was torture for Galileo. His impatience made it difficult for him to listen to his teachers, who taught by lecture and demonstration. He frequently questioned the facts they taught him. "Why is this so? What would happen if we treated the patient this way instead of that?" His teachers would tell him, "This is always the way it has been done. We do not ask why." Galileo was expelled for his constant questioning.

Galileo left the school and went into a nearby church. I let the children imagine his thoughts at this time. He must have been terribly worried about how his father would react. He may have returned to his boyhood dreams of becoming a monk. But while he was in the church, he watched the priests come by and swing the great incense lamps that hung on long chains from the ceiling. He noticed that no matter how far the incense lamps were swung, it took the exact same time for them to make one complete arc. Aristotle had said that the longer arc would take a longer time. "Aha!" he shouted. "Aristotle was wrong! And now I can prove it!" Here I asked the children how they thought Galileo might have measured the swinging lamp.

"With a clock," someone said.

"That would have been very handy, but alas, they had no clocks in Galileo's time."

"He counted," someone else surmised. I had them close their eyes and count up to 30. We noted how much time it took. Then we did it again and found it took a different amount of time.

"Counting is good. It gives us a good approximation of the time. But it might not be precise enough for Galileo to use to prove Aristotle was wrong."

"Maybe he had a sand-dial type watch."

"Well, that would give an accurate measure of a longer period of time, but would he be able to use it to measure the few seconds of the lamp's arc?"

"Maybe there was music in the church and he used the beat of the music." I love the ideas the children come up with.

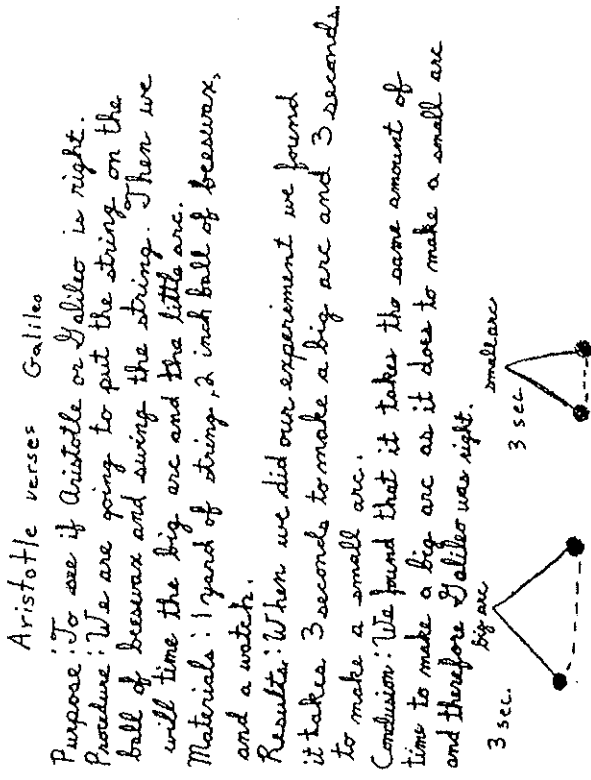
"Ingenious, but alas, there was no music in the church that day."

Eventually, with a hint or two, they got it. Medical student that he was, Galileo timed the arc with his pulse. This led into a fascinating discussion of time and how it can be measured. Why can I use the sun but not the wind? Why isn't counting accurate? What is it about time, anyway? Why can I use my pulse but not my breathing? One child disputed using the pulse. She said Galileo's heartbeat would change because of his excitement at proving Aristotle wrong!

I challenged the children to design an experiment that would prove whether Galileo or Aristotle was correct, first teaching them the proper procedure for writing up a scientific experiment. They conducted their experiments, and we compared results (one group's documentation of their experiment is shown in Figure 11.1).

The students were very accurate in their measurements, using a stopwatch that showed results in hundredths of a second. One group listed their results: the long arc took 2.52 seconds; the small arc took 2.47 seconds. I was pleased—the results confirmed that the two arcs took the same amount of time—so I was shocked to hear their conclusion: Aristotle was correct. It did take longer for the long arc. While I naturally attributed the slight variance of .05 seconds to the imprecision of fourth-grade technique and measurement, the children took the results literally (or do we say, in this instance, mathematically?). They were being much more scientific than I. We all have a tendency to see results in terms of the outcomes we expect. On many occasions I have seen students ignore the actual results and record instead what they think the answer should be. I stood condemned by this same inclination. This led us into an important discussion about the variables that we could not precisely control, and how all measurement is approximate to the degree our instrument can measure. We learned the concept of "margin of error." We also learned why it was important to repeat an experiment multiple times and determine averages in order to get more accurate results. In this way I was able to teach the methods and

Figure 11.1. Experiment to determine whether Galileo or Aristotle was correct



skills of scientific procedure in an authentic context, one that arose from our own activity and experience.

After his epiphany, Galileo rushed out of the cathedral and set up a laboratory in which to prove Aristotle was wrong. He conducted many experiments; this was remarkable because the whole idea of doing experiments to find out what was true was heretofore unknown. Galileo is regarded as the father of modern experimental science. Before Galileo, if you wanted to find out what was true you looked in the books of Aristotle, the unquestioned authority. But this did not satisfy Galileo. He would not base his understanding on what the authorities said. He had to find out for himself! He represents in the scientific world this spirit of the individual that we would trace to our ancestors in the founding of our country. Just as Galileo insisted on finding the truth for himself, the English colonists insisted on being part of the process that would formulate the laws of our land.

I went on to recap the rest of Galileo's life. (I tell the story rather than have the children read about it. If knowledge is dependent on reading, then the children will have unequal access to it. I have books available for those

who want to go into more detail, but I don't want to hinder the less able readers from taking part in the discussions and activities.) If Aristotle was wrong about the pendulum, what else might he be wrong about? Galileo staged a public demonstration from the (not yet leaning) tower of Pisa. He dropped a heavy ball and a light ball from the tower as all the professors, religious authorities, and curious townspeople watched. Sure as the eye can see, both balls hit the ground at the same time.

Nevertheless, the authorities still did not believe him, even though they had seen it with their own eyes! Aristotle had said that a heavier weight would fall faster than a lighter weight. What Aristotle said was their truth! Their conceptions were so inflexible there was no room to adjust them in the light of new data.

The children were quick to reprove the authorities for their stubborn rigidity. "I mean, they saw it, how could they not believe it?" But we always have to be careful in judging others, especially across the centuries. Is there anything we have today that we can see with our own eyes but still refuse to believe? How about magic? We cannot believe the tricks some magicians are able to perform, even though we see them with our own eyes. So it was not so unusual for the authorities to dismiss Galileo's experiment on the grounds of magic: It was an understandable hypothesis given the context in which they lived and thought. Just as we know a magician doesn't really saw a woman in half, they knew that the ideas of Aristotle and the church could not really be wrong.

The children were outraged to learn that Galileo was called to trial for his ideas and that his books were burned. They were disappointed that he recanted at the trial and admitted that all his books were false. They were thrilled that students came to visit him while he was under house arrest and smuggled his manuscripts out to other countries to be published. The truth can never die! (The story ends in 1992, when the church formally admitted it made an error in condemning Galileo and issued an official apology and pardon.)

Martin Luther

After Galileo, we turned our attention to Martin Luther. I told the story of his life in the same way I had with Galileo's. Luther insisted that there need be no higher authority to mediate the relationship between humanity and God, that every individual needed to develop his or her own relationship with the Creator. He translated the Bible into German so the people could read it and interpret it for themselves. Luther wrote 95 theses detailing the errors and hypocrisies he saw in the church, and he, like Galileo,

was brought to trial for his beliefs. The children were especially heartened to hear that Luther retained his conviction at his trial. Their longing to champion the courage of humanity, dampened by Galileo's retraction, was restored by Luther's refusal to recant. I had them memorize his response to the court, the heart of which is, "I cannot and will not retract anything. It is neither safe nor right to go against one's conscience. Here I stand. I cannot do otherwise. God help me. Amen." This is the same rock the American patriots stood on almost 300 years later.

Oliver Cromwell

In politics, we studied Oliver Cromwell and the Glorious Revolution. The "Roundheads," as Cromwell's followers were called, were not willing to accept laws, believe laws to be righteous, just because they came from the hand of the king. They wanted to have a say in the making of those laws. We experienced their struggle in deciding whether or not to revolt against King Charles. He clearly refused to share his power with anyone, but what about the precedent set if the people seized power? What authority would ever again be safe?

The night before the king's execution Charles and his enemies prepared themselves for the final struggle. For Charles, the only victory left was in dying bravely. His enemies hoped to weaken his courage. Each side was fighting for the minds and hearts of the people. If Charles winced even a little, if by his behavior on the scaffold he showed himself unworthy of the thousands who had died defending him, the throne would be tarnished forever.

The king wore two shirts on the day of his execution to avoid the appearance of being fearful if he shivered in the cold January morning. Cromwell had moved the crowd far enough away from the scaffold so they would not be able to hear anything the king said. Nevertheless, Charles spoke, ending his remarks with a summary of his political philosophy. "For the people, and truly I desire their liberty and freedom as much as anybody, but I must tell you that their liberty and freedom consists in having, of government, those laws by which their life and their goods may be most their own. It is not for having a share in the government, sirs; that is nothing pertaining to them." To the end, Charles stood by his own ideas of government. It was for the king to decide what was good for his people. The people had no business sharing in the government.

The ax fell, and parliament tried to rule. But in a few years the people demanded a king once again, and Charles II came back from France to rule.

Although certain individuals were ready for a new kind of government, the general public had not yet broken free from their dependence on the king.

Finally, in the arts we saw the rise of the individual reflected in paintings. Before this time, the subjects of art were primarily religious or royal. In the paintings of Brueghel and Leonardo the common peasant began to emerge as a worthwhile subject.

In addition to these in-class examples, I had the children read other biographies of the Renaissance in search of more examples of the changing minds and hearts of the people.

EVALUATING WHAT THEY LEARNED

I was able to evaluate the children in a variety of ways. I learned a lot about their understanding through their participation in class discussions. The children all wrote biographies of a Renaissance person that concluded with a paragraph on how this person relates to the spirit of the American Revolution.

At the end of our study, they all wrote about what they thought John Adams meant by his statement. Emily's response represents the understanding I hoped they'd come to:

The Real American Revolution

John Adams said that the American Revolution started in the minds of the people long before the war of independence.

Before King Charles I, people believed that the royal family was blessed by God. During King Charles I's time the people were beginning to question the idea of the king having special powers to rule. Did they really need a king to rule over them?

This was happening in religion also. A monk named Martin Luther helped people form the idea that Pope and priest were not the only ones who could have a relationship with God. They thought they should be able to read the Bible for themselves and decide what it meant for themselves.

A century before the American Revolution, old ideas in science were being questioned also. Aristotle had been the greatest scientist in the world for hundreds of years, until Galileo, a young scientist, proved some of Aristotle's works wrong. But finally he was forced into saying his ideas were wrong because the church said they would

kill him if he didn't. All of Galileo's books were burned in Italy, but he sent his manuscripts to scientists in other countries. Galileo was the first scientist to base his work on experiments and to find out for himself how nature worked.

These are all examples of what the American Revolution was about. These are the things that started in the hearts and the minds of the people, that they should be able to choose their own government, that they should be able to worship God in their own way, and that they should not be put in jail for their ideas.

I also evaluated the children on the scientific aspects of the project: the design and execution of their experiment, how they recorded and reported on the data, and the conclusion they drew from their results. (I like the approach taken in Figure 11.2!)

I hold all my students to high standards, but I don't expect them all to achieve the same level of understanding. For example, some children were able to retell the lives of the Renaissance personalities in their own words and write coherently about them. They designed experiments to find out if Galileo or Aristotle was correct. However, when I challenged them to think about the relationship between Galileo, Luther, Cromwell, and Leonardo, they had a vague sense that they are related but weren't able to articulate it. And they had very little understanding that these lives had anything to do

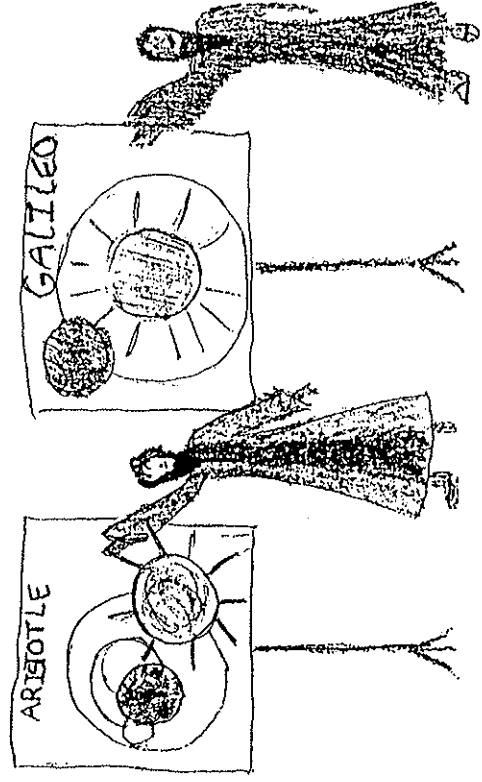


Figure 11.2. Galileo-Aristotle

with the American Revolution. A second group of students were able to see and articulate the relationship between the four biographies, that they all are individuals who stood up to the authority, the system, the conventions of the time. They also had a sense of the relationship between these persons and the American Revolution but had trouble articulating it. The final group enjoyed the stories, saw the connections between the four characters, and also understood how they were the seeds of the American Revolution.

I push all my students to think more deeply and stretch them to demonstrate their understanding, but because of very different levels of development and abilities, I do not expect them all to reach the third stage. What I like about a project like this is that children who do not reach the deepest levels of understanding will still be challenged and actively engaged. They, too, will feel success from the hard work they were able to accomplish. Each level of understanding has its own challenges and fills the children with a sense of accomplishment when they meet them.

CHAPTER 12

A Friend of Their Minds: Capitalizing on the Oral Tradition of My African American Students

Yvonne Divans Hutchinson

As a child, I thrived on reading and learning. In addition to fairy tales, novels, and poetry, I read the Bible, the newspaper, comic books by the hundreds, all 10 volumes of my Spiegel Catalogue edition encyclopedia, parts of the dictionary, the backs of Kellogg's Corn Flakes and Quaker Oatmeal cereal boxes, and anything in print that I could get my hands on. I read incessantly, in the bed under the covers at night with a flashlight, out on the porch or in the yard, in the car during family trips. To me the written word was sacred, inviolate.

Although I have since learned not to believe everything that I read, I still regard the act of reading with the awe I felt as a 6-year-old. I still love learning with the fervency sparked during my first year of school. This is the legacy handed down from my teachers, beginning with my mother and continuing through the fourth grade with the three African American women who guided my education through the land mines of segregation and discrimination in the South, helping me to realize that literacy is the road to freedom, and from all the great teachers since, of all hues, who sparked my intellect and touched my spirit, who have passed on the legacy: a love for humanity and lifelong learning. It is this legacy that I hope to share with my students.

As a teacher, I have focused for many years on developing strategies to engage all my students in substantive discussions of literary texts and the issues those texts raise for their own lives. In this approach, I build on the oral traditions of my students' African American and Latino cultures and seek to support the development of their literacy skills through high standards, explicit expectations, and rigorous literature experiences.

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