

In her editorial “Quality Science Teachers: Essential to America’s Future,” which appeared in the September 2006 issue of the NSTA journals (p. 10), NSTA President Linda Froschauer wrote passionately about the importance of American science education. While I certainly agree that science education in this country is very important, I respectfully disagree on the reasons why. Instead of making calls for national superiority, we should be emphasizing the students’ personal interests and opportunities to improve quality of life across the globe.

Froschauer is using a view that is based on the idea that our scientific success relative to that of other nations is somehow connected to our quality of life. While this may have been true in the Cold War era, it is not true today. We should be flattered: The countries whose scientific work is rapidly improving, such as China and India, are trying to imitate us, not annihilate us. Furthermore, this progress is helping lift millions out of extreme poverty, which is a good thing, even if those people are not Americans. Finally, scientific progress transcends national boundaries, so we stand to benefit from their discoveries.

All too often, these discussions neglect to consider students’ interests. It is as if we expect students to altruistically become scientists so we can achieve some political objective. This would be an entirely unreasonable request—if it were valid. The truth is there are many reasons that learning science benefits students personally. It helps students appreciate our magnificent world. It can lead them toward careers they will find rewarding both financially and emotionally. Finally, it helps students develop the analytic abilities they’ll need to make good decisions in life, both on and off the job. But as long as we leave these reasons to learn science out of the debate, students won’t see why they should bother.

A further note of caution to those who want students to altruistically become scientists in order to improve our national quality of life—their efforts to reach this goal might fail. Studies comparing Americans’ self-reported happiness now to that of several decades ago indicate that our quality of life has not risen along with our scientific knowledge and financial wealth. Froschauer touched on this phenomenon in her article when she observed that “our nation has begun to take science and the accomplishments of scientists in the United States for granted.” Indeed it has, because without many of those accomplishments, we would still be about as well off. Our happiness has physiological limits, and we appear to have hit them a long time ago.

Or have we? The studies further conclude that to make ourselves happier, we should be spending more time with our family and friends and less in the lab or office. The extra material wealth our work brings is often not worth its psychological toll—that is, unless you’re like me and really enjoy the work. Thus, the Chinese and Indian model for scholastic scientific success, built on long hours of study imposed by demanding parents, is inappropriate in America. We should look instead to Europe, whose citizens enjoy significantly more time off than Americans and in turn report higher levels of happiness.

Finally, for what work we are doing, we should focus our efforts on that which will improve quality of life, be it in this country or beyond. Froschauer is spot on here by citing energy and medicine as important areas—and these areas definitely require a lot of science. By connecting science and quality of life improvements, we can provide crucial motivation for our students. If we can convince students that their work truly is important then they will respond, just as they responded in decades past when the Soviet Union truly did pose a threat to our lives. But please, avoid the hollow nationalism we’re hearing these days. It’s not true and students see through it, which is why it doesn’t work.

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