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Seminar on Science, Technology and Development in honor of Prof. A. K. N. Reddy

Unlike most people at this seminar, I didn't meet Amulya through a common interest in Electrochemistry, appropriate technology, public policy and administration, or energy policy. I met him as a 17 year-old college student in the dusty town of Karaikudi, where, at the Electrochemistry Institute, he had just started as a scientist on his return from England with his Ph. D.

Science as a profession was a mystery to me at that time. I don't mean that I didn't know what science was -- already most of my heroes were scientists and mathematicians, but they were distant heroes, larger than life, not quite real, not quite human scale. The science, engineering, and mathematics teachers I had had were often anti-models -- at best, they taught science as a set of facts and established procedures, not as a process of enquiry, openness & daring; at worst, their scientific spirit was no match for their superstitions -- some saw no problem in performing morning rituals to free the eclipsed moon from Rahu and Kethu, and following it up with a lecture on Newton's Laws in the afternoon. Other scientists I knew at the Institute were solving technical problems and were often inspiringly absorbed in them, but it was still science in the small. I didn't know what it meant to be a flesh-and-blood scientist of the sort that attracted me to science in the first place -- one for whom doing science is both a technical enterprise and a way to look at the world in general. What it is to *be* a man of science was a mystery to me.

That was when I met Amulya. He was passionate about the specific problem in Electrochemistry he was working on, but science was not just something he did in the lab. He was doing science whenever he thought about the world. It was an attitude -- rationality, open-mindedness, evidence instead of revelation or authority as basis for belief. He also cared deeply about science and society, especially its potential for remaking India. He presented a vision of scientist as a social agent, not simply by virtue of his commitment to knowledge and to rationality, not simply as one whose creation -- knowledge-- in turn creates conceptual and material changes in the world, but as one who is driven as much by motivations of social good as of scientific progress.

To me, he was a concrete instance of the kind of scientist whom until then I had only read or read about. To close the sale, he knew cricket, he was funny and a bon vivant, and I could bum cigarettes off him. What was not to love?

I don't mean to embarrass Amulya by implying that he invented the scientific method or the life of reason. It is just that people like him who were such thoroughgoing scientists were rare. His impact on me might be as much a commentary on my limited background as on Amulya. But 40 years of living in the US has convinced me that he was not only rare for Karaikudi, but just rare.

Amulya, for well or ill, inspired me to become a scientist.

Quite apart from providing this inspiration, Amulya played a more material role in my science career. Amulya & Vimala welcomed me to their home in Philadelphia for a year in 1963, during my first year as a graduate student at Penn. My memories of that year are as warm, comforting and pleasure-laden as a freshly made pot of Vimala's garlic rasam. Her legendary kindness & solicitousness, and their daughters' company -- they ranged from a Beatles-mad teenager to a preschooler -- made the year a special pleasure. That was also the year Amulya was writing his famous Electrochemistry text with John Bockris. A dominant memory I have is the ferocious commitment to clarity that drove Amulya as he worked on the book.

It was a learning experience to watch Amulya's remarkable capacity to inspire affection, warmth and loyalty in his colleagues at Penn's Electrochemistry Lab. I did not know anyone at his lab who was not totally charmed by the very Amulyaic mixture of sly humor, generosity, empathy, intellectual honesty, ambition to do good work, and knowledge of many things, scientific and otherwise. Over the years, I have tried to model myself after Amulya. I have to confess that much as I would have liked to have become a clone of Amulya in the personality dimension -- who wouldn't like to have his success with people? --, some things are hard to do. I decided that while probably it was not so hard for Amulya to be Amulya, it wasn't too easy for me to be Amulya. So, not for lack of trying, I decided to do the easy thing and just continue to be me.

Over the next several decades, as Amulya returned with his family to India, our paths didn't cross as often. But I watched with admiration his decision to focus on science that was relevant to India's needs, specifically the needs of the rural and urban poor, and the evolution of his interests towards public policy and administration, and, finally, to energy policy. I could see that this evolution was not a random walk – anyone who tries to create social change realizes the importance of policy, administration and management, and soon enough finds out that access to energy is at the heart of liberating us all from toil. His interest in energy issues is certainly looking very prescient, as world events happen as if they felt a responsibility to prove him right.

All in all, he has had a life in science that is as unique as the man himself.

I'm a computer and cognitive scientist, sharing little professionally with Amulya's interests. However, all through these decades, he has been an important presence in my mind as a model and inspiration. I've always felt a certain responsibility towards him for this inspiration and his and Vimala's investment of affection in me: that I try to be committed to being a scientist. Amulya bet on me to play the game. I can't say how well I play it, but I am happy to say that it has been, and continues to be, great fun.

Sincerely,

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