

Address at the IIT Bombay Convocation, 10 August, 2013 – by Kaushik Basu

[On the occasion of the Conferment of Doctor of Literature (Honoris Causa) by IIT Bombay on Kaushik Basu]

The Director of IIT Bombay, Prof. Khakhar, Sri Ramadorai, Dr. Kakodkar, Prof. Ashoke Sen, distinguished guests, students and professors:

For an academic and a researcher there are few prizes that can measure up to an honorary degree from the Indian Institute of Technology, Mumbai. India's IITs are among the absolute best institutes of higher learning anywhere in the world. Students graduating from IIT have reason to be happy and proud. And now that you have decided to confer a D. Lit degree on me and invite me into the family, I too have reason to feel happy and honored. Thank you.

In the long run, a nation is known more by its centers of higher learning, its scientific and philosophical achievements than its other more-worldly accomplishments. Think of Greece several centuries before the Christian era. We all recognize the names of Pythagoras and Socrates, we have heard about the academies of higher learning associated with Plato and Aristotle. Indeed Greece owes its phenomenal success as the cradle of modern civilization to these kinds of persons and centers of learning. Think of the success of Britain in the 18th and 19th centuries. The proximate cause had to do with business and politics but those could not have occurred without the foundation and indirect influence provided by the outstanding universities of Britain and the intellectual contributions of a range of personalities, from Isaac Newton, David Hume and Adam Smith to John Stuart Mill. Likewise, for the phenomenal success of United States in the 20th century and continuing. This occurred because of the investment the nation made in its universities, institutes of higher learning and in human capital and creativity.

If India takes off and becomes a major economic power in the world—this is possible but by no means certain, it will owe a large part of it to the IITs. But we should be clear. The IITs and few other good institutes in India stand out like isolated islands in a vast nation. I hope the nation's political leaders will have the

wisdom to realize that if the rise of India's economy is to be a reality we need many more such institutes and academies; we need to encourage higher learning, research and creativity in the sciences, in mathematics, in literature and in the arts.

My own discipline, economics, is a strange subject because it blends positive science with normative philosophy. Targets and goals matter in all walks of life but in economics they play a more integral role. We often forget that our choices and decisions depend on what our ultimate goals are.

Some years ago, I read somewhere that every time we go jogging for 10 minutes our life expectancy increases by 8 minutes. This sounded like a good deal; I took to jogging in earnest. Then one day the question struck me: What is it that I am trying to maximize in life? Is it the amount of time I spend on earth or the amount of non-jogging time I spend on earth? If it is the latter, then the statistic just cited is reason *not* to go jogging. It means that every time you spend 10 minutes jogging, your non-jogging life gets curtailed by 2 minutes. Ever since then I have had an ambivalent attitude towards jogging.

This is a facetious example but it highlights the way our ultimate targets impinge on our actual decisions and choices. In economics, this happens time and again. If a nation's aim is growth, it will go for one kind of policy; if the aim is better income distribution, it will have to craft another set of policies, even though the two sets of policies will probably have a lot of overlap, stemming from the fact that in either case you will need an efficiently functioning economy. The World Bank has recently decided to combine the aims of growth and better income distribution by proposing that nations promote shared prosperity, which is then formalized as income growth of the poorest 40% of each nation. This concern for better sharing and equity is a break from the World Bank's earlier objectives. There is effort afoot now to develop policy measures to hasten nations towards this new objective.

I consider myself fortunate that I have had the bulk of my career in research; and, over the last four years, had experience policymaking in Delhi and Washington. Research is a strange activity, marked by a single-minded pursuit of

aesthetics and beauty, and the urge to discover hidden patterns in nature. Contrary to what some people claim, it is not—I have to admit—driven by the urge to help society. It does help society, hugely so, but that is a by-product. When the eminent physicist, Freeman Dyson, went to Robert Oppenheimer to ask for leave from the Institute for Advanced Study to work on a practical project to make nuclear-propelled spaceships, Oppenheimer was not happy. To him “the only activity worthy of an institute professor was to think deep thoughts about pure science.”¹ This single-minded pursuit is not special to science. When an artist like Anjolie Ela Menon paints and a music composer like A. R. Rahman creates music, they do it the same way.

Exactly what interests a researcher varies from person to person. For me, the interest in economics stems from an interest in deductive logic, which I have had ever since I was a child and even before I knew there was anything called deductive logic. It is the abstract, logical foundations of economics that fascinate me, and that is what made it possible for me to absorb myself totally in research for over three decades. When in the summer of 2009, completely out of the blue, I was invited to be India’s Chief Economic Adviser, I was in a dilemma. I had to tear myself away from my first love, research. I told myself that if I were going to make that sacrifice and take the job, I must do so to consciously work for a better world. I may have succeeded or failed in that, but that is what I have strived to do these last four years.

You, the students of IIT Bombay, are going out into a big wide world. There will be times of joy and times of disappointment. It is important to cultivate an inner resilience, so that you can take these in your stride. Also, train your mind to develop a love for human beings irrespective of race, caste, religion and nationality and where they may be located. We live in a small world and it is our collective responsibility to make it a better and less-divisive place.

Let me close by observing how, when preparing for today’s event, I was a bit surprised to note that I was asked to speak for 9 minutes—not the usual 5, 10 or 15, but 9. I told myself, this is IIT. If there isn’t precision here where will we find

¹ ‘Oppenheimer: The Shape of Genius,’ by Freeman Dyson, in *New York Review of Books*, vol. 60, August 15, 2013.

precision? And as I thought more, it struck me this is a good idea. In fact, I myself had tweeted some months ago that if you wanted a person to come on time to see you at, say, 10 o'clock, you should ask her to come at 1 minute past 10. With that instruction she was likely to come earlier than the well-rounded 10. (Indeed this will be a nice experiment to run in a laboratory.)

When you give a person a well-rounded number, like 10 or 15 minutes to speak, he may treat this as approximately 10 or approximately 15 and speak for more. But "approximately 9" does not make sense. The number 9 comes with a hint of precision that 10 does not have. It was this instruction that made me write up my speech which I rarely do, to ensure I stuck to the allotted time.

This is the kind of reasoning that is used in a new branch of economics called "behavioral economics," to get better behavior from people. It is good to see IIT using behavioral economics on those on whom it is conferring honorary doctorates.

Given IIT's use of behavioral economics, it is not that surprising that IIT chose to invite an economist for its convocation and to address this audience. I treat this as a sign of my good fortune. I am truly grateful to you for the honor and thank you once again.