

Bridging Two Cultures

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It is a pleasure to share with you the adventures, triumphs and heartaches that are involved in choosing to live halfway around the globe. It has been an enriching and instructive experience; one unexpected by-product has been a heightened appreciation of one's own cultural and social heritage.

While studying and doing research in India without any particular plan to come to the United States, I had the good fortune to meet and get acquainted with the late Robert Marshak, a scientist of the first magnitude and one who so clearly exemplified the Indian traditional ideal of the guru: 'one in whose presence knowledge arises spontaneously.' I have met many scientists of greater achievements but none who is a Greater Master. At Professor Marshak's suggestion I came to the University of Rochester as a graduate student in the Fall of 1955.

It was an exhilarating experience to meet so many distinguished physicists, people who were previously mythical figures on book jackets or in scientific anecdotes. But at the same time it was a sobering experience to know that pursuit of truth was not always their driving force and to know that great physicists were not necessarily great men. Clearly it is a necessary part of growing up! Just as it was, to realize that discovery and publishing your scientific discoveries and the general knowledge of your having done it is no guarantee that you will get the honor and credit. If you don't have a constituency, you should be able to transcend disappointments.

From the early days of encountering people who talked a distinct dialect of English believing it was the only kind of English that existed, it has been difficult to communicate cultural patterns. For people who followed a dualistic desert religious tradition, it is difficult to think of more ancient nondualistic spiritual tradition as a legitimate world view but only as "cults." Talking of Judeo-Christian traditions and in special situations of the Greek philosophical

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tradition shows an awareness of "our roots," but the Indian philosophical tradition or the Vedas are mystical, animistic or irresponsible. Under such prevailing situations where Latin and Greek are scholarliness but Sanskrit or Pali generate hostility, one has to be careful and be something of an adept at cross-cultural bridges.

Yet America today, especially among the scientists, more closely parallels the age of the vibrant vedic period of plenitude and intellectual adventure. With modern conveniences one can carry out one's academic-scientific duties and yet find forest-like isolation to contemplate the deep mysteries of nature if that is one's intention. Is it not a great privilege to be paid a living for work that you enjoy?

It is not that everyone is contemplating the mysteries of the universe. Like many species that hunt in packs, scientists, too, find relative safety and comfort in doing things that others among them are doing. Our teenagers are not the only ones who want to do "their own thing" by doing what everyone else of their peer group is doing. And like teenagers genuinely believing that they are choosing their fashions and mores, so do scientists believe that they choose the problems and procedures. No wonder many of them become hostile if you ask them why they are on the bandwagon! The mechanism of peer review of scientific manuscript and scientific research proposals tends to institutionalize this groupie modality.

In scientific research there is the choice of the problem, of the methodology of research, the choice of collaborators, search of the literature, writing-up of the results and dissemination of the already published results. Despite the most sophisticated instruments and tools and the extensive management problem in collaborative research, there is still the cutting edge of discovery which is private and spontaneous. The moments of such discovery are "peak experiences" in the sense of Maslow: and are devoid of ownership or competition. One has only the profound sense of gratitude that one has been privy to such an insight.

This peak experience is highlighted in my traditional culture; and I see no reason why I should not fully concur. They do not furnish credits in the bank or in the market place and, so, many people consider them not to be "useful." But it seems to me that this is a personal choice

and that I should be free to make it. Like King Solomon who requested of his God, wisdom above all, got from God all other boons like fame, victory and wealth usually insight entails "useful" results. But not always: the tragic story of the two Abels (the son of Adam and Henrik Abel, the Norwegian mathematician) tell us that virtue and wisdom do not always triumph.

The world is imperfect and one must live at peace in it. Do you pursue your rights or do you pursue truth? The latter is less strenuous and more joyful. One has to accept discounts to your worth if you do not have powerful allies!

All this brings me to the question of whether as an Asian-born scientist I am adversely discriminated against. Much of the time I am not aware of the question since grappling with a scientific problem I am like Jacob wrestling the angel: I don't want to let go without being blessed. Then there is no menace of a hostile Esau, no fear of the avaricious Laban but only the struggle with the angel. But when I descend from the struggle, when I am like everyone else and comparing things, when one hears about hot pursuit of trivial discrimination issues, then I feel very disturbed by the unfairness of being left out in the cold. This could come from institutional "superiors," or from supposedly elder statesmen of science. When your name is left out of consideration despite the many salient discoveries you have contributed, you feel upset; when your younger colleagues or students present your own work with someone else's name attached to it, you feel both amused and saddened; I used to get angry but now I find it more amusing.

There are ways out of such situations, but this involves an active seeking of patronage and repudiating your cultural heritage. For some it comes naturally, for some with effort but successfully. But there are the saddest cases when such efforts do not produce any positive benefits.

I have a European-born, eminent scientist colleague with whom I have discussions on aesthetic and philosophic values. We share our common norms for the enjoyment of science. So I know that the problems of bridging cultures is not merely of an Asian in America. Perhaps people are different: and if you dare to be different, you may have to be lonely. After all, excellence is an elitist tag and the peak experience may not appeal to all.

On the whole, I have found the scientific milieu to be nurturing and comfortable, the people I came across in everyday life to be generous and goodwilled, the students that I teach to be people who inspire me to be better. What more can one ask? Perhaps for more comprehension of other cultures.