

Some Randomly Accessed Memories From my Days at the ISI

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September 19, 2007

It was August 1960 when I made the longest trip of my life that far, all the way from a place called Bapatla, to join the first year of the newly started degree program, B.Stat. Given my interest in mathematics, I was destined to be an engineer, except that the newly introduced age-restrictions (one had to complete 17 years before being admitted to an engineering college) prevented me from doing that. Given no such restrictions, and the novelty of the subject, statistics was an easy option. My elder brother, who worked for the LIC in Bombay at that time, thought this to be an opportunity that would trump engineering.

Along with my uncle who came to drop me off at the ISI, we entered the RTS (Research and Training School) office with a wad of papers (transfer certificate, good-conduct certificate, marks sheets etc.), only to be told by “Kannai Babu,” Head of the RTS office, that he does not need to see any of that, and to just come to the classes which started the following week.

Dr. C.R. Rao was our class-teacher and even before we knew what statistics is all about, he got us immersed in interesting class-projects such as population projections, participation in the post-census survey etc. Other classes included Professor J.B.S. Haldane teaching us what he called “General Science,” which meant he had license to talk about any science subject or indeed any subject including philology, gerontology (we had guest lectures on the latter topic by Alex Comfort who later became known for his book “Joy of Sex” and lived part of the time in Santa Barbara). Professor P.C. Mahalanobis taught us calculus(?) out of the book “Pure Mathematics” by G.H. Hardy. Dr. D. Basu used to bring decks of cards and dice to the class

room to teach us probability out of the rather newly published book, Volume I of Feller. No tuition fees to pay, no textbooks to buy (although some of us made an occasional trip to the used-book stalls on College Street), this was quite unlike the college I was expecting! (Note: The Committee on Academic Personnel on which I served at UCSB for several years, is rather picky on where we should use the title of Dr. or Professor, but I have no doubt the usage in this paragraph is correct, because at the ISI in those days, Professor only meant PCM and perhaps JBS because he didn't have a formal doctorate, and all others if they have a Ph.D., are referred to as Drs.!)

At the end of first semester, I went home not quite sure how well I did and what to expect. One sure thing was fear, because there were people who were admitted in that batch that had already finished Bachelor's degrees, and one who was quick to show off his copy of "Advanced Theory of Statistics" by Kendall and Stuart! Even more scary was the fact that on the first page of that as well as other books, he wrote his name up as Newton! I have seen fellow students in Bapatla high-school writing "Srirama" on every page or a crank who wrote up his favorite film actress's name on every page of his notebook, but Newton?

I had nightmares all during the holiday break, and when I returned back to the Institute, the first thing I heard was that JBS Haldane was looking for me and that I should go to see him. I was very nervous until I found out that he was actually looking to invite me to his home for a dinner, because I came first in the examinations, and was following tradition back in England, he told me. I should recall a couple of anecdotes regarding this memorable evening at his house. After I was offered a bit of scotch whiskey (I just completed 16 years and he told me it is good in moderation) and dinner, I was encouraged to ask questions to JBS. I asked him a weighty question about the origin of life on earth, to which he gave a long and equally weighty answer that only he can give, covering molecular biology, chemistry, genetics and astronomy! One of the other big privileges of my doing well, was that I was given access to his personal library on the second floor of ISI (besides the general library which was on the fourth floor) and I did not have to fight to borrow books on many of the subjects like biology or statistics. Haldane was such a superstar that whenever he wanted, all other classes would be canceled and we went to botanical gardens or the zoological gardens to learn the requisite science firsthand!! The Director of the Zoo or Botanical gardens would show up to receive us and take us around, and explain things. Classes

were also canceled, I recall, so we could visit Hindustan Motors to see cars being manufactured, and to Jamshedpur to see the steel factory there. This did not last very long, because Haldanes left the ISI during my second year in B.Stat. after hurrying up and teaching us some genetics, a field in which he is a giant!

One of the other memories of my B. Stat. days, are the many garden receptions in “Amrapali” that we were invited to, whenever distinguished scientists (like Niels Bohr, A.N. Kolmogorov, R.A. Fisher, etc.) visited the ISI. That far, the ISI did not have students as young as us and we were the pets that many of them did not have and we were on show as the students of ISI (there were not that many, just the first batch of B.Stat. and first batch of M.Stat.). In the later part of the four-year B.Stat. (Hanurav called it a Fourier transform), other things I remember are the Giridih trip for the crop-cutting surveys during a cold winter, and the CSO trip to Delhi on a very hot summer for the training in official statistics.

After a grueling four years of B.Stat. (I recall that only 14 out of the 29 that were initially admitted, actually graduated), I was admitted to the second year of the M.Stat. degree in 1964, specializing in Advanced Probability and Mathematics, with the training given essentially by the great Indian school of probabilists, consisting of V.S. Varadarajan, K.R. Parthsarathy, and R. Rangarao. (S.R.S. Varadhan taught us Real Analysis during third year of our B.Stat. but not during this time.)

When I was looking for a Ph.D. topic, it varied each few months until a geologist named Supriya Sengupta brought up some questions about paleo-current analysis on which they were collecting data from the Godavari Valley. Dr. C. R. Rao (as well as PCM) took personal interest in this, to showcase the interaction between geologists of the Geological Studies Unit and the statisticians at the Institute. At the suggestion of Dr. Rao, I made a field-trip to parts of the Godavari valley where Supriya and others were conducting field work and collecting data. We would walk through dense forest with the help of a local guide, who with his machete would make path for us and occasionally scare us about tigers that we barely missed minutes ago (or did they miss us?)! This collaboration led to some practical advice to the geologists on sampling strategies and sample sizes needed for this kind of directional data, and to my own more theoretical thesis. With all the external reports in, my formal dissertation defense took place at Amrapali with the committee consisting of PCM, C. R. Rao, and R.R. Bahadur, and

the questioning was rather informal, centering around Brahma Samaj and when would I come back to join the ISI etc.

After my thesis was sent out in 1968 for external reviews and even before those reports were in, I received a job offer (no applications, no CV sent) to join the Department of Statistics at Johns Hopkins University from one of the reviewers, based on the thesis he read. This was going to be a visiting appointment in the beginning and then to be formalized to tenure-track. But even before this, one of my papers which was co-authored with J. Sethuraman was presented by him at a nonparametrics conference at Indiana University, Bloomington, and became the source of another offer, to which I already sent in my acceptance. Those were the days, when you could receive multiple offers without seriously trying! Part of the credit goes to being an alumnus of a great institution like the ISI and having outstanding training from such a distinguished group of teachers.