

Partha Dasgupta

Born 1942.

Autobiographical life story.

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1. Family Background



I was born in November 1942 in Dhaka, then known as Dacca, now in Bangladesh, but then part of India; my maternal grandfather was a prominent lawyer in Dacca, which is where my mother was born. My paternal grandfather was born in a village called Goila, which is in Barisal, a district in the Ganges-Brahmaputra delta of East Bengal, now Bangladesh; my father's mother was from East Bengal as well.

By the time my father was born, the Dasguptas of Barisal were impoverished financially, but it was a family with a long scholastic history, as I understand it they were a dynasty of scribes dating back to the seventeenth century; some made considerable reputations as Sanskrit scholars, but that didn't make them rich. My father's father was an officer in local government; he worked in the district capital, also named Barisal.

Three of my grandparents died before I was born, but I did get to know my mother's mother. She died in 1954; she was a lady of considerable independence of mind; one of my mother's sisters, quite a bit older than she, was married at the age of thirteen and widowed at fifteen.

My grandmother took a stance subsequently, which meant that my mother didn't get married until she was twenty-two: she was encouraged by my grandmother to graduate from Dacca University. My mother had a deep interest in both Bengali and

English poetry but I didn't get to know that until she was old. When I was growing up she was wholly engaged in raising a family and looking after my father.

My father was a professor of his times; his students visited our home regularly; many lived away from their own homes, so my mother assumed the role of a surrogate mother to a rather large extended family. I have one older sister; we shared our parents with many others; my father was an economist, having begun his career in Dacca University; later he settled in Benares, now known as Varanasi; his last, arguably his best, book was published when he was eighty-five.

My father had an enormous influence on me, in many ways he was my closest friend; of course, there would be many personal matters I would never discuss with him, but I would consult him on matters of scholarship. We enjoyed each other's company; he was a rationalist; he imbibed, I suspect in Dacca University, perhaps even before joining the university as an undergraduate, a deep-rooted affection for scholarship, possibly reflecting the scribal history of his ancestry.

Learning was hugely prized in Bengal even if you didn't have much money; Bengal enjoyed an intellectual and social renaissance in the second half of the nineteenth century; it was influenced by British culture; the Tagores, for example, didn't come out of nowhere, they came out of a fusion of Brahmanic culture and a nineteenth century import of utilitarian, rationalist thinking; I think the two cultures combined to make my father an exceptional person. He was not religious; we were a sub-caste of the Brahmins, named the Vaidyas.

There are two theories regarding the reason why the Vaidyas had been demoted; one is that we were medical practitioners, and because we studied cadavers we were downgraded; another less aggressive theory is that we began charging a fee for our service; I don't know if either is true, but it's certainly the case that the Vaidyas spawn a disproportionate number of professionals; my father's father, although an official in a provincial town, had connections with some eminent thinkers who were trying to found a new religion, which they called Satya Dharma; Satya means truth, and Dharma is Dharma, I don't know what the latter means; what I do know from my father is that the god his father revered was "truth".

My father had a Spartan attitude to life; he was always tidy, meticulous in doing things; my mother was similar in her bearing; at the time I was growing up, my father had a secure salary as a professor at Benares Hindu University; I never experienced any hardship; in fact, when young I was in danger of being spoilt silly by a doting elder sister and our parents.

2. Washington DC

I don't remember the Bengal famine but I do recall communal violence, albeit dimly.

We left Bengal for Delhi in 1946; we lived in Old Delhi which even then had an even mixture of Hindus and Muslims, so the mood was pretty tense at times; my father's younger friends and colleagues banded together to protect our flats from rioters. I have only dim memories of the time because I was only four years old. In the event the riots didn't reach our home, but communal violence was fairly routine at that time right through northern India and Bengal.

My father didn't have a satisfactory teaching post, so we remained in Delhi for only six months; we moved to Orissa's Ravenshaw College for a few months; once there, he was offered the Chair of Economics at Benares Hindu University. That said, my reliable memories begin only from the time we moved to Benares, in autumn 1947; we had a comfortable life there; the campus was and still is one of the most beautiful in the world.

I wasn't sent to school until I was nearly eight years old; I once asked my father why he didn't enrol me at a school until then; he said he didn't because I appeared to be uninterested in studies; I played all day every day on the street next to our house. I had a tutor who came once a week to teach me arithmetic and Hindi, the latter because my mother-tongue is Bengali. Everyone in the university knew of my teacher as Master-ji, because he was tutor, or Master, to many of the professors' children. Apart from that I didn't have a formal education until we moved to Washington DC in December 1950.

We went there for what turned out to be three years; my father worked at the International Monetary Fund, or IMF as it is known, on leave from Benares Hindu University. As education was compulsory in the United States, I was enrolled in school.

Before moving to Washington my interest centred on cricket, which I played all day with street kids from the university campus; I used to supply the bat, a wooden ball and sticks. My memory of Washington was that we all missed India for a month or two but then grew to love the place. My mother, for the first time I think, enjoyed freedom from social obligations and financial worries. Although my father enjoyed a good salary as a professor in Benares, he had financial obligations towards his elder brother and his family, so my mother economised ruthlessly. The IMF salary, on the other hand, was so large that for the first time my mother felt she could encourage my father to take us to concerts and movies, for example, and generally indulge in extravagances she wouldn't have dreamt of in Benares.

She, my sister, and I enjoyed life in Washington thoroughly; it's hard to imagine a greater contrast than that between Benares and Washington, especially in those days; my father didn't like it quite so much; he missed university life and didn't enjoy office work. He had an afternoon nap even at the IMF; if you called him between one and one-thirty, his secretary would tell you he was having a nap.

I attended Bancroft Elementary School, which was our neighbourhood school. In recent years I have been back to our neighbourhood a few times, but have never entered the school because even during school hours it's locked against what my mother would have called "undesirables", in this case drug dealers and the like.

In those days however life was more innocent, the gates were open all day. It was a wonderful school, though only a local state school; in those days America was well ahead of Europe in elementary schooling. You will appreciate that there was racial segregation then, so Bancroft was a nearly all-white school, with a few foreigners like myself thrown into the pool.

I had marvellous teachers; I fell deeply in love with a class mate, a beautiful girl called Joan Edwards, who I still like to think reciprocated but demurred out of shyness. On academic subjects, I remember being fond of geography, which was taught in a very location-specific way; the geography of Washington streets, for instance, and our chores involved making paper-mâché buildings like the White House, the Washington Monument, and so forth, which I remember enjoying greatly.

I used to play softball, which replaced cricket; I can't say any teacher shaped me in any discernable way, although I was very fond of Mrs Dietz, my class teacher in my second year. The other day I re-discovered a book she had given me in 1952, 'Great Composers'; there is a lovely inscription in it, she was thanking me at the end of the school year for the help I had given her, wiping the blackboard at the end of the day, re-arranging desks and chairs, that sort of thing.

I can't say I have any memory of intellectual growth in that period; however my sister, though 14-15 years old was even then hugely grown up and very, very clever. She influenced me greatly; she used to read grown-up books, even Dostoevsky, and spent her pocket money on a number of titles in the Modern Library series; I peeked into them even though I could make no sense of them. My fondness for the US dates back to those three years; even now, whenever I show my passport to the immigration officer at a US airport, I feel I'm returning home.

My father joined IMF because he had been asked by the Finance Minister of India to go there to represent India; he was Chief of the South Asian Division; he was reluctant to leave Benares Hindu University, but was persuaded to take leave for two years. Once there, his friends urged him to stay for three years so as to be eligible for an IMF pension; he stayed exactly one day longer than was necessary. That pension was a bonus in retirement, as he had no inherited wealth; he and my mother enjoyed a comfortable retirement, as the small pension from the IMF converted into rupees wasn't negligible.

3. Back to India

We returned to India in November 1953, to Benares. My father reasoned that because I spoke English fluently and because the medium of instruction in schools in Benares was Hindi, I would lose my fluency in English if I went to school there; the nearest English medium school he could locate was La Martiniere, a public school in the mould of minor public schools in the UK.



La Martiniere school, Lucknow.

La Martiniere is well known in India, with campuses in Calcutta and Lucknow; I went to Lucknow as a boarder, and was there for two and a half years; I hated the school. Objectively speaking I suppose it was a reasonable place, and a number of my contemporaries were comfortable there, but in contrast to the life I had enjoyed until then, life in La Martiniere was overly regimented and lacking in compassion. For example, corporal punishment was a commonplace; there would be mass caning if no one in class owned up to a misdemeanour.

We were taught Hindi as a second language, which later created problems for me, but English was the medium of instruction. It was the first time I was away from home; as it turned out I didn't get to live with my parents again until years later, in 1970 when my wife and I visited Delhi for a year. We were taught Latin at La Martiniere and I remember receiving five out of hundred in my first Latin exam; I don't believe the subject, or for that matter any other subject, was well taught.

Nothing excited me academically, so I got nothing out of the place; I played some cricket, but not much; I was unhappy at La Martiniere, although I did pretty well in the annual exams; I remember during school holidays in the summer of 1956 mentioning my unhappiness to my sister, who is five years older. She marched to my parents and insisted I wasn't to return to La Martiniere; so, my father made enquiries; there was a school about ten miles from the University campus, Rajghat School, one of whose patrons, a renowned freedom fighter and social activist, Achyyut Patwardhan, was a friend of my father.

It was Achyyut-ji who suggested I enrol at Rajghat, even though the medium of instruction there was Hindi; my father, no doubt with Achyyut-ji's help, arranged for me to be admitted at Rajghat. Ten miles in those days was a long distance, so I boarded there. It was an extraordinarily good school and was the place that made

me as I now am; I'm talking of an external institutional influence, not my family's influence, which of course has been profound.

Rajghat is a fort, but the campus itself is in a forest clearing; about 400 acres in size, the school is on a plateau overlooking the Ganges and a tributary called Varuna; it was founded by Annie Besant (right), an eccentric theosophist; as befitting the paradoxical nature of the Indo-British relationship, she became President of the Indian National Congress at one time. She founded Besant Theosophical School, not far from the campus I attended; she had discovered a young man, J. Krishnamurti, who she reckoned would be the next messiah; he grew up to be a spiritual thinker, very well known for his teachings, not only in India but also in England, Continental Europe, and the US. When some years later Krishnamurti dissociated himself from the Theosophical Society, he really was a free thinker, our school followed him and became part of the Krishnamurti Foundation.



Sometime in the 1930s or '40s the school moved to the campus I was enrolled in. It was really a remarkable school, there is no question about it, and I had a number of phenomenal teachers. I went back there last month with my wife; we spent a magical week on Rajghat campus, which today is even more enchanting than it was when I was a student there. The quality of teaching was exceptional; most of my teachers joined the school because of Krishnamurti; my teachers were of an intellectual calibre who, sadly, would not normally have become school teachers.



Rajghat School.

A person who influenced me greatly was my physics teacher, Mr. Shashi Bhushan Mishra, who also taught me chemistry. In the first few months, when my Hindi was still raw, he would write in Hindi on the left side of the blackboard and then in English on the right side so that I would know what he was talking about; in due

course he stopped doing that because I informed him I was able to write up my notes in English even though his instructions were in Hindi.

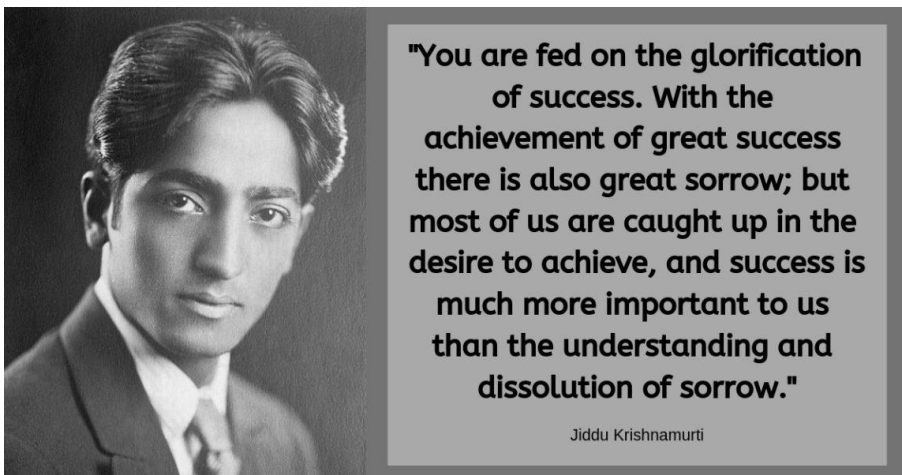
The summer following my final exams, that was 1958, he taught me trigonometry in preparation for college, but refused to accept a fee from my father. I graduated from Rajghat at fifteen; at that time schooling in India typically involved ten years, which was followed by two years at an intermediate college, then two years as a Bachelor's student, followed by two years as a Master's student; you completed your education at about age twenty-one, pretty much as in England.

I think the person who in the long run influenced me most at Rajghat was my geography teacher, Mr. Vishwanathan. I have had a delayed response to his teaching; I am convinced my interest in nature and the work I have done to help create ecological economics grew out of those two years of classes with him. He taught us geography as an analytical subject, not as an assembly of geographical facts. I also had a fantastic teacher in English, Mr. Tarapado Bhattacharya, a Bengali who lived a bachelor's life on campus, in a single room. All his worldly possessions were there in that one room.

Towards the end of my first year I was ill for a while, when recovering I went to his room to borrow something to read; I knew he had a collection of novels, which he kept in a trunk in his room; I chose 'The Woodlander' and asked if I could borrow it. He looked doubtful, but agreed; I read it over a weekend and went back and asked for another book to read; he offered me Dickens but I was intrigued by Hardy; I asked if I could borrow 'Jude' and still remember his distress.

I was thirteen and he didn't want me to read Hardy, but as a scholar he found it impossible to say "no". He allowed me to take it but was anxious about having done so; I couldn't see then but understand now why he should have been worried, but I loved Hardy;. The next book I borrowed was 'Tess', and I worked through Hardy that winter, much to Tara-babu's distress. Apart from school work, I played cricket; I was captain of the cricket team; I did no drama or music, as I had no skills in the performing arts; as you can see from what I have been recounting.

4. Religion



J.Krishnamurti.

I was happy at Rajghat, it was a most productive two years; the school was very liberal, but with strict codes of conduct, sustained by the most reasonable of ways, which was by an appeal to reason. Those who addressed us at our daily assembly were some of the noblest minds in India; the school campus was home not just to students, staff and teachers, but also to a number of very eminent retired people who were friends and admirers of Krishnamurti, among them Achyyut-ji.

They had been freedom fighters, social activists, and civil servants; to listen to them, being in their presence, was a privilege that I even then sensed. Krishnamurti, or Krishna-ji as we knew him, visited the campus for a month in each of the two years I attended Rajghat. He could speak no Hindi, and because I was the only student on campus who could speak English fluently, I was asked to accompany him on walks when he asked for company. I can't say I'm an admirer of his writings, that's because I don't understand them, but for a boy of my age to have somebody with that intellectual curiosity and intensity to accompany for walks was a wonderful experience.

Religious beliefs in the sense of the Abrahamic faiths have never held any attraction for me; I am certainly not religious in that sense, but I have never felt hostile to religion excepting when it takes on an ugly stance as it does periodically; obviously, I have nothing but contempt for the strident expressions of religious ardour that we are currently being tested with in the Muslim world; but I greatly admire the caring, liberal expressions of religion, such as the current Anglican Church with its humanist tradition, or the Catholic priests in the world's poorest parts who bring comfort to so many households in times of especial stress, even risking their lives doing so. The Church was a great source of strength among the outcastes in India. Nuns and priests educated many who were then able to enter the professional world, but you won't ever read Indian intellectuals acknowledging those gifts.

That said, I've never experienced religious feelings in the Abrahamic sense, no god has ever spoken to me; Krishna-ji was a spiritual leader, not a religious leader; in fact he spurned formal religions and regarded them as suffocating; recently I read a few of his published lectures and found that his teaching have a strong flavour of

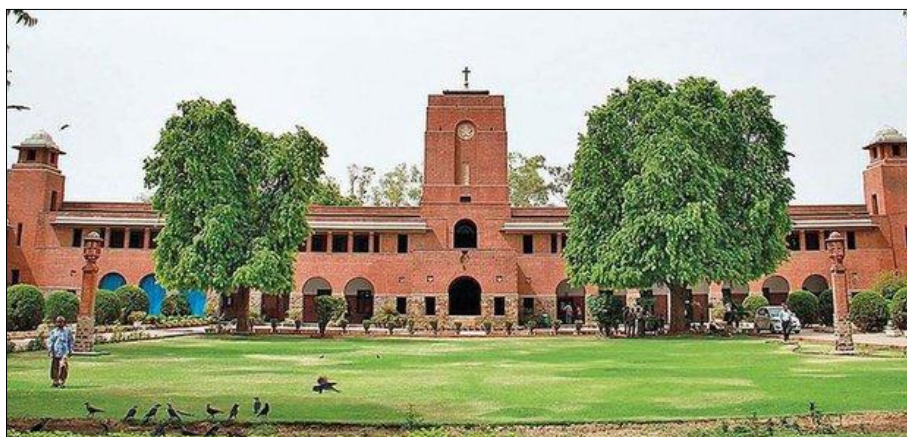
the teachings of the Buddha; I can't say I have got much out of him though, probably because he is even less clear than the Buddha; but you ask whether I have ANY kind of religious feeling, and the answer must be "yes". When my physicist and biologist friends insist you can't but be awestruck by the beauty of the truths of nature, I know what they mean, not only because I know some of those truths, but also because I have had those experiences when unravelling socio-ecological pathways; if you call that religious feeling, which I think it probably is, I have it.

I do go to Chapel in my college, St John's, because the music is truly magical and the atmosphere is exceptional; it's what the Chapel must have been designed for, to allow for moments of reflection and tranquillity; I had grown used to the twice-daily school assembly at Rajghat, where we all, teachers and pupils alike, sat on the floor to listen to sanskritic devotional songs or hymns from the Upanishads.

The thoughts invoked there are altogether exceptional; we were brought into contact with the bards' incantations to dawn, dusk, the natural world around us, and the truths that are there to be uncovered. My mother was not overly religious, but she was a practicing Hindu; she looked after a small icon of the goddess Lakshmi, given to her as part of her bridal package. She left it for my wife who keeps it snug in our bedroom.

My mother prayed twice daily, but her prayers were anchored to her chores. Her mind was in the kitchen even while she prayed. Whenever I went home from school or college, or even in later years when visiting her and my father in their retirement in Santiniketan, one of the first things she did was to go to the nearby temple to thank the deity that I had returned safely. I always accompanied her, as I knew she would like me to do that; I experienced no discomfort doing so.

5. Delhi University



Delhi University

When I was growing up you left high school at about age fifteen, you then went to an intermediate college; my parents moved in the summer of 1958 to Delhi; it had the best university in India at the time, so it made sense for me to go there and not to Benares Hindu University. Delhi had a different system involving eleven years of schooling, then three years for a Bachelor degree and two for Masters. I had just completed the school finals that involved ten years of education, but there were a couple of colleges affiliated to the University of Delhi that offered a one year transitional year amounting to a “pre-university” degree.

I enrolled for that, in Hansraj College, and later moved to the Bachelor's programme, remaining in Hansraj College; so I studied in Delhi for four years before coming to Cambridge; for the Bachelor's degree you concentrated on one subject, much as in Cambridge, and I took physics; my choice didn't reflect any particular fondness for the subject, I took it as a matter of course because in those days good students studied physics.

It was a good physics department with some significant figures as professors; I graduated from Delhi in 1962 and came to Cambridge as an undergraduate; as most able graduates in Delhi in those days obtained scholarships to study in the US for a PhD, I lost touch with my Delhi University friends. The 1960s were in the pre-internet age; in any case, undergraduates are busy people and concentrate on making friends in their new habitat. Moreover, Delhi, being the capital city and not much else, was a place of refuge for migrants; if my parents had remained in Benares, there would probably be boyhood friends with whom I would have kept in touch during vacations. In the event I wasn't able to keep in touch with my fellow students at Delhi; my closest friends are all post-1962.

In my second year at the University of Delhi I became ill with jaundice; even when recovering I was unable to do much physically; so I went to the library and by chance picked up an anthology of American plays, the Pulitzer Prize plays of the 1930s and '40s, as I recall; I found them altogether original in thought and experience, and over the following two years I read nearly all of O'Neill, Williams, Miller, Inge, and also a number of outstanding playwrights of the 1930s, such as

Odetts, Wilder, and the Andersons. The drawback was that there was no theatre in Delhi, so reading was my sole point of entry into the world of drama; and drama has been my sole entry into the world of literature, because after leaving Rajghat I lost my ability to read novels, excepting for detective novels.



The Aldwych Theatre.

In recent years I have added the Greek classics to my reading list. My wife and I visit the theatre frequently, and did so even when raising our children. The Aldwych Theater was our base in the 1970s because it's next to the London School of Economics which is where I taught then; so we saw a number of phenomenal productions of the Royal Shakespeare Company.

I enjoy listening to music and attend concerts regularly; when I lived in Washington as a boy I developed a taste for Western classical music. In the long summer breaks I would wander from store to store, reading comic books at drug store counters while eating hot dogs. I used to visit a particular record store regularly, not far from our home on 16th street; in those days you could listen to a record before buying it. In fact you could listen to lots of records without buying any. I listened to music in the store booth; the store keeper knew mostly I had no money to purchase an LP, but he still welcomed me every time. I could afford to buy an LP at best every couple of months, using what I had saved from my weekly pocket money. The first record I bought was Brahms's 1st Symphony.

I became so friendly with the store keeper that when the day before leaving Washington I went to say good-bye, he asked me to choose an LP. He gave it to me as a gift; I chose Beethoven's Eroica. I was not taught any musical instrument, in the event my interest in Western classical music effectively died when I returned to India. Because the vinyl records deteriorated; I couldn't even get replacement needles in Benares.

My interest in music resurfaced after marriage because my wife plays the piano and loves music; I have little understanding of music though; I understand the theatre a lot better than music. I don't mind music in the background even while at work,

because I'm oblivious of what's happening while I am scribbling or doing mathematical calculations. Music has not inspired me in any fundamental way; nor have I much understanding of art; as I grow older and reflect on the enormous privilege I have enjoyed in being able to attend concerts and visit art galleries, I feel it is all a resource allocation failure. I would have readily given up those privileges to art students, who could have made much more of those experiences.

6. Cambridge University

I arrived in Cambridge in September 1962 to read mathematics; at that time I was hoping to be a theoretical, high-energy physicist, and in Cambridge theoretical physicists are drawn from mathematics; I enjoyed applied mathematics but pure math never interested me, nor was I any good at it; I was also becoming interested in social issues; this was the time of the Vietnam War, and a number of my acquaintances were social scientists.

I was at Trinity; Peter Swinnerton-Dyer (right) was one of my supervisors and was also Dean of College; he was a deep and original mathematician; I got to know him well even as an undergraduate and now see him pretty regularly; I admired his style of enquiry. He was interested in a number of subjects and was able to relate seemingly unrelated ones.



Years later I discovered that ability in an unmatched degree in Kenneth Arrow; when in 1977 I read Arrow's "Limits of Organization", it permanently changed the way I conceived economics and the way I framed social problems. Trinity was a huge change from Delhi;

I had read a lot of Bertrand Russell's writings in Delhi; he was a major influence; next to my father, Russell was the biggest influence on the way I read the world. For example I imbibed a sceptical attitude toward what people in power say or do; I like to think I am a softer person than Russell, my scepticism is allied to a belief, naive perhaps, that if people were to sit together to thrash things out, they would come away in broad agreement.

I am also a thoroughbred democrat, whereas Russell was loftier, his democratic instincts were kept at bay by his aristocratic leanings. But I never met him so I can't be sure; he wrote a number of autobiographical essays, so I knew something about Cambridge long before I came here. When I arrived I thought everybody in the street was likely to be a genius, and for a whole week I didn't enter Hall, I was so frightened. Eventually I was forced to, as Hall was compulsory in those days and I was paying for it; I met Francis Cripps the first time I went into Hall; he came and sat next to me. We subsequently became the closest of friends; he was devastatingly brilliant, so my suspicion wasn't disproved, that Cambridge is full of geniuses.

I didn't get much out of undergraduate life here, nor in Delhi previously; I had a seven-year spell after leaving Rajghat when I didn't really grow much; I must have been acquiring knowledge and expertise, but I was unaware of it. I was not politically engaged, although I took part in a few marches in London against the Bomb and the Vietnam War.

I have several friends from my undergraduate period with whom I have remained close; Francis left England some years ago for Thailand, so I haven't seen much of

him in recent years; the philosopher Simon Blackburn and I were and are close friends; I like to think I had some influence over his return to Cambridge from the US. He and I and Christopher Garrett, a very distinguished oceanographer and mathematician, were exact contemporaries; Garrett left his Prize Fellowship at Trinity a year after completing his PhD and made his career in the US and Canada, but we keep in touch; I used to go to the Arts Theatre frequently but never joined a drama society.

On completing Part 3 of the math tripos I transferred to economics; I was intending to work toward a Diploma in Economics, which is sort of a conversion course for people transferring to economics from maths or some other subject. James Mirrlees was an economics Fellow at Trinity; I had got to know him, as we both were members of the Apostles, a discussion society; he encouraged me to move to economics because he could tell I was interested in social issues.



I became a student in economics in 1965; I could have completed the Diploma, but once I had sat for the exam at the end of the academic year, in 1966, Mirrlees suggested I work instead for a PhD. He had been a mathematician before becoming an economist, so was the ideal supervisor in more than one sense; even then one could tell he was a towering thinker. Mirrlees ensured that Trinity funded my research, a gesture for which I remain more than just grateful; in the event I completed my PhD dissertation in eighteen months, which is probably a record.



I submitted my dissertation in April 1968 having begun working toward it in October 1966; it's the sort of unimportant achievement we academics tend to remember and remain proud of. I worked on the problem of optimum intergenerational saving, which is a practical application of the concept of intergenerational justice. The great Cambridge economist/mathematician, Frank Ramsey (right), a Fellow of your College, had framed the problem in a 1928 paper.

The problem had to do with how much of a nation's GDP ought to be saved for future generations; you can tell the answer depends on the economic model you postulate. For example, on whether investment is likely to be productive, whether human ingenuity can be expected to overcome environmental constraints, and so on. Ramsey was a thoroughgoing utilitarian, as was Mirrlees. Because putting Ramsey's formulation to work on various economic models was the thing to do in those days, I did the same.

I worked on the Ramsey problem using an economic model that had become popular among left-wing economists, it had been constructed in the Soviet Union in the 1920s; but although publishable and was published, the paper wasn't novel, as unknown to me several other economists were also applying Ramsey's formulation to that same Soviet model; however, for my final dissertation chapter I did something no one in the crowded field of the theory of optimum economic development had thought of doing. It was to study optimum savings and population policies jointly.

In Ramsey's world and the world being studied by economic theorists at the time, future population numbers were not subject to human control, they were forecasts. I followed Henry Sidgwick and my future father-in-law James Meade in posing the problem of optimum saving and population in a utilitarian manner; although Sidgwick and Meade had addressed the problem, they hadn't offered an analysis.

The chapter and the paper I published on its basis provided a complete account; it remains one of my best papers; however, a few years after completing my PhD I began to question the Sidgwick-Meade formulation. I became convinced the formulation was wrong; the classical utilitarians, and Meade was the last great classical utilitarian, gave equal weight to potential and future utilities, they didn't distinguish people who would be born if only we chose to create them and people who would be born no matter what happens to be government or household policy.

That lack of distinction was the reason behind my finding that classical utilitarianism recommends very large populations; I began to doubt that potential people should be awarded the same weight as future people; over the years I have worked off and on trying to justify a moral theory that gives greater weight to the welfares of actual and future people than to potential welfares; such a theory recommends fewer people than classical utilitarianism. In a world of limited resources that matters a lot.

Along the way I worked on the more restricted problem of justice among the generations; but the problem of optimum population has dogged me ever since my graduate student days; because I have no training in philosophy, it's taken me many tries to present the formulation in a satisfactory way; my most recent paper on the subject, which I like to think has nailed the bird I've been trying to catch, was published recently in the latest volume in a series begun by the late Peter Laslett, on political philosophy.

The book was edited by James Fishkin and Robert Goodin and is on population and political theory; from that early work I also became interested in demography; so I've tried to understand the motivations underlying fertility behaviour; I was never persuaded that the slogan "poverty lies at the heart of high fertility in poor country" is anything more than patter; so I've tried to identify structural failures in poor countries today that have resulted in high population growth there.

The puzzle was to explain why in poor countries fertility rates didn't drop following declines in mortality rates as quickly as one might have expected; I've also brought data to bear on the matter; the structural failures I'm talking about are what economists would call "adverse reproductive externalities", which is a fancy way of

saying that pro-natalist behaviour that may be reasonable at the individual household level is collectively bad news for the community.

You should know though that my work on the poverty-population-environment nexus hasn't made me popular among mainstream development economists nor development activists. When I published my first paper classifying the various structural failures sustaining high fertility rates, a number of friends took me to task for taking a "right-wing" stance toward the problems of economic development.

Some even accused me of being a Malthusian; that's about as lowly as you can be in the economics world. In recent decades population has been a taboo among development economists and activists unless it's discussed as an adjunct to gender inequities. Most anti-Malthusian writings such as those that appear routinely in the Economist newspaper, are worthless. They make a caricature of what he was about, and do a very selected amount of data-mining. I am not a universal Malthusian, his arithmetic and geometric rules haven't been at play in Europe since the Industrial Revolution; but I AM a Malthusian in the sense of being hugely concerned over the growth in population numbers and material consumption in a world with limited resources.

Unprecedented growth in those two variables are playing havoc with the Earth System; both rich and poor countries are contributing to it in their different ways; those who believe this isn't happening are rejecting a great deal of ecology, environmental sciences, climate science, the lot. The work I've done at the population-poverty-environment nexus has identified the harmful unintended consequences that our decisions on consumption, investment, and reproduction have on others in the presence of structural weaknesses. Those consequences find their way into the future. Some arise because of a lack of well-defined markets, for example, capital and insurance markets.

When you anthropologists observe that in poor countries parents desire children not only as ends but also as means to substitute for old-age pension and labour-saving devices, you in effect point to adverse reproductive externalities; that's to say it's rational from the individual household's point of view to have large numbers of children, but it's collectively bad news.

The current determination among growth and development economists to show that Malthus was wrong strikes me as being a misleading exercise; people are certainly living longer today than they were 200 years ago. Many, many more people are better off now in terms of their standard of living, but if you ask whether development has been sustainable or is likely to be sustainable under business as usual in a particular country, then you've to worry about the state of the natural resource base, and the environment more generally. Figures for gross incomes, GDP for example, or life expectancy, don't even begin to allow you to look at that question.

7. Environmental Economics

One of my research projects over the past couple of decades, joint with colleagues such as Kenneth Arrow and Karl-Goran Maler, has been to determine from such data as we have how much trashing we have been doing to Earth while growing in numbers and enjoying higher living standards and longer lives.

We ask whether there are serious losses waiting in the future that we aren't taking into account when we study growth rates in GDP; or that lead to notions of justice among generations. Today, economists trash Malthus so as to go into denial over environmental degradation. The Economist recently poked fun at him under the caption "false prophet"; the newspaper does now acknowledge climate change as a devastation in waiting; but climate change is only one in a long list of environmental problems.

Our treatment of the oceans and tropical forests is another; we've also been destroying coral reefs, fresh water sources, mangroves, and top soil. My friends among ecologists, Paul Ehrlich especially, are criticised for having repeatedly forecast doom even though the putative forecast hasn't materialised. But that's to interpret ecologists as saying there will be one big global catastrophe; ecologists I know never say that; like we economists and you anthropologists, ecologists for the most part gather their insights from a study of small problems, geographically confined problems.

In my own work on the poverty-population-environment nexus I've shown that in poor countries catastrophes in consequence of environmental degradation occur routinely at the household, village, even district level. When you see out-migration from a village, for example, you can be sure they've suffered a catastrophe there; receding forests and vanishing water holes are sometimes the tipping point; often the proximate cause is social tension, ethnic cleansing and the like. But they are frequently triggered by environmental stress; it's tempting to trace all that to a single cause and call it "bad governance", but that's just a way of rephrasing the problem. The particular rephrasing doesn't illuminate; intellectuals are drawn to mono-causal explanations, but that's almost always bad social science.

Social phenomena are subject to multiple causes, and the causes influence one another over time. Being an optimistic tribe, we economists see beneficial reinforcements among those multiple factors, leading to a never ending virtuous cycle of economic growth. My own work tells me that's not the only pathway; the flip side consists of mutually destructive reinforcements in Human-Nature interactions, bad positive feedbacks, even "vicious cycles".

Over the years I've tried to construct a rigorous account of how small differences among people can become big cumulatively; those who were slightly unfortunate to begin with get trapped in poverty even while those who were slightly fortunate to begin with enjoy a better and better life. The thought here is that small initial difference among people can make for huge subsequent differences among them. Personal, even regional histories bifurcate communities into the haves and have-nots. It's often said that history is a great leveller, but my own work on socio-ecological pathways tells me history can also be a great divider.

I was originally drawn to a study of possible pathways that give rise to poverty traps in joint work with the economist Debraj Ray, who had already been thinking along similar lines when we met in Stanford in 1983. We began to study nutrition science together and realised that nutritional insults in childhood, even when in the womb, can have irreversibly adverse consequences on a person's ability to work in adulthood.

Some time later it struck me that other factors contributing to the positive feedbacks are degraded natural capital and high fertility rates. I keep returning to high fertility rates in contemporary poor countries because mainstream development economists, even economic demographers, have chosen not to make much of them. Good social science should be open-minded enough to ask whether it's possible that individuals choose in reasonably rational ways and yet things go awry collectively, thereby individually.

Population growth rates in Sub-Saharan Africa have been very high, but you can't necessarily fault individual Africans, they may well have been choosing rationally. Collectively though it's been a disaster. Sometimes it's said that poverty is the real problem, not population; but persistent poverty and high population growth in the contemporary world are related.

It's not an accident that the average African has far larger families than the average European. Both have a rationale; however one pathway sustains impoverishment, whereas the other leads to higher and higher gross incomes. Whether the former is Malthusian is totally uninteresting, the question should be whether the theory is speaking to data. Studying the poverty-population-environment nexus has been fraught for me; colleagues in the US have sometimes responded to my writings by asking how I could be against cutting down tropical forests the size of Belgium each year to make way for agriculture when there are so many hungry mouths, or against building dams to provide irrigation water for rising numbers of people.

It's meant to be a conversation stopper, but the choice being posed is false; there are far cheaper ways of alleviating hunger and increasing employment than cutting down rainforests the size of Belgium each year; but so long as natural capital in the wild is priced at zero, you wouldn't know there are cheaper ways. When I'm asked the conversation stopper, I realise my writings on the subject have been just a waste of time. In any event, if development policy in poor countries had taken population growth and resource depletion seriously in a world where local ecosystems are tightly bound geographically and connected to the wider world in an overlapping manner, we wouldn't have been forced to make the sort of choices people seem to accept as necessary for poverty alleviation today.

Like you anthropologists, we economists like to work on small problems, I mean problems facing people in a village, for example. They are a lens through which one can glimpse the bigger picture; you can do that if you are lucky; I usually avoid the big picture because I'm scared I would draw too many conclusions, many of which would not carry over from the small. Details matter; that's probably why I don't get overly emotional about the micro-world, even though I write about them constantly and find dismal processes at work.

It's often said human ingenuity will find ways to overcome environmental problems; many say material consumption can be expected to grow indefinitely even for a world population of 9.5 billion or more, so long that is we store waste carefully. They are applauded by business and the media for having shown that only a minor tweaking of business as usual is all that's required to avoid unsustainable development.

The Economist's preposterous columns promoting Bjorn Lomborg's 2001 book is a recent example. They were empirically and analytically worthless pieces of journalism; no one and no system, not even capitalism, can fool nature; you try to fool her by resorting to a technological fix and she throws up an entirely unexpected side effect that's often worse than the problem you helped fix.

The study of geographically confined ecosystems has shown over and over again that they can flip into degraded states that are either hard to reverse or impossible to reverse. The same has been found for human communities. Publicity over global climate change is probably the first dent on the belief that insults to nature are invariably reversible. If the mean temperature goes up by 5 degrees beyond what it is now, Earth will have entered a regime it hasn't visited in a million years. There's little in the form of hard data to show what that would imply for life.

At the time of the industrial revolution global human impact on nature was negligible; even the social value of natural resources was low, at least at the global level. There's a sense in which my profession has been obsessed with the economic happenings of the past 250 years; but that's a wink of time in a span that covers 10,000 years of sedentary life. Economic models typically place a zero value to natural capital, as say in GDP estimates, so they don't confront trade-offs among the various forms of capital assets.

We economists are gradually admitting that nature ought to be priced a lot higher in economic calculations; but there are powerful vested interests in the world, not only in the West, who don't want to see that happen. But if natural capital remains cheap, scientists and technologists will have no reason to engage in R&D that's directed at economising on our reliance on it. During the past 250 years technological innovations have been rapacious in their use of natural capital for that very reason; today, market fundamentalism allied to a low price of natural capital is the order of the day. My work hasn't made the slightest difference to the dominant view that population growth and nature can be neglected.

Development economists continue to write textbooks in which village life in Africa and the Indian sub-continent is disconnected from the local natural resource base, on which life is based there. My friend and collaborator Karl-Goran Maler (below) and I realised some years ago that the only way to introduce natural capital into teaching material in poor countries would be to teach economic teachers there directly. The MacArthur Foundation offered me a good bit of money to start a teaching and research programme involving young economists in the Indian sub-continent; that must have proved useful to those who attended the courses, because in time they suggested forming a network. Maler and I helped to find more funds to

establish the South Asian Network of Development and Environmental Economists, or SANDEE as it's commonly known.

We also established a journal at Cambridge University Press; its remit involves intellectual support for submissions from poor countries, such that even though the editors ensure that submissions are peer-reviewed, economists in developing countries have been able to publish there on a regular basis.

Our particular capacity-building activity has been a success; in other respects though my work at the poverty-population-environment interface has been a failure. It hasn't influenced official development economists one bit; that said, my friends and colleagues seem to like the idea that I work on these problems. I receive honours on a regular basis, election to the world's greatest Academies for example; the affection that must lie behind the honours is most gratifying, but the intellectual neglect is deflating; the matter puzzles me no end.



8. Reflections

I'm not sure I know what's been my most important work, in any case it's for others to judge; with but one exception I haven't had a research agenda, largely because excepting for the odd occasion, I've never had an intellectual mission. Friendship has mattered a great deal to me, and a lot of my most cited work has been with others, always with friends.

With one of them, Eric Maskin, I have published papers that have taken a dozen years from start and finish. In today's world, at least in economics, that's an unthinkable delay; but as our families have enjoyed each other's company, we've goofed a lot, eating into work time. I have never felt much urgency about my work, nor have I felt it was socially important, that I can make a difference. That feeling has been re-enforced by the relative neglect of my work by my peers. I enjoy chasing problems if they strike me as interesting; I've almost always kept away from problems that were in fashion among my peers, not because I didn't think the problems were interesting, but because I'm not confident I would win a race.

That may explain why I have usually framed problems others haven't noticed; I'm talking now mostly about work that I have done on my own; even those must have been fairly good, at least those that were published, otherwise editors wouldn't have accepted them. In fact I've been phenomenally lucky with professional journals; editors have been very kind to me. That luck has mattered because when working on my own I've rarely caught the bird I was trying to catch in one go. Some of my ideas, for example on optimum population I talked about earlier, have taken me years, literally decades, to come to fruition. Meanwhile though I was able to publish versions in progress; I've rarely had a big "eureka" moment, it's almost always been incremental understanding.

I like to think I understand the social world better now than I did even a couple of decades ago, but it would be presumptuous of me to say whether I've had important insights. I've worked on absolute poverty a lot because I have tried to understand the phenomenon with the same rigour that colleagues study well-functioning societies, such as economies harbouring perfect markets.

It seems to me we economists differ from cultural anthropologists in as much as we believe people everywhere are statistically the same; so, when one sees differences among peoples, we feel those differences require explanation. Some differences will be sticky, some fluid, some will take a long time to emerge, others fast. You have to look at the data with the discipline of theory to see what's a slow-moving variable and what's fast-moving.

Over the long haul even culture isn't an explanatory variable for economists because we feel cultural differences need to be explained as well. The question arises why some variables are more sticky than others. What I have tried to do in a systematic way is to try and put the concerns of anthropologists, political scientists, geographers, demographers, and ecologists into one pot, mixing them with those of economists, so as to understand what's been going on in Sub-Saharan Africa, south Asia, and parts of Latin America, with the kind of precision that my economics

colleagues have insisted on for understanding Western liberal democracies and market economies.

The parts of the world I have studied most are non-market economies or are substantially affected by institutions that are neither markets nor the state; I've tried to study households and communities, looking for a common framework for understanding the lives of people in very different socio-ecological environments. It's relatively easy to specify the circumstances faced by households, nor is it too difficult to determine how households would respond to those circumstances in their choice of consumption, work, reproduction, and networking among one another. The hard bit is to feed all that into a coherent account of the evolution of the socio-ecological system. That's really hard; when I say I understand the social world much better than I did twenty five years ago, I mean only that I have unearthed a few of those pathways.

I'm by temperament not a scholar, I've rarely ever thought about a problem or read a book without an eventual publication in mind. That's why I could never have become an "intellectual", let alone a "public" intellectual. In fact I'm hugely wary of them; when I read intellectuals in literary magazines, usually over coffee in the Common Room following lunch, I find them to be saying a lot that's clothed in fine phrases, scholarship, literary allusions, irony, and wit, about nothing in particular.

I'm drawn to professionals; they know what they are talking about, they have something original to say, and they know the limits of their understanding because they are able to define those limits. They also like to use evidence to inform their accounts; in my case even conversations with friends often revolve around the problem I'm currently working on.

In all these years there was only one period when I really was driven by a project; that was when I worked on my 1993 book, *An Inquiry into Well-Being and Destitution*. I made it a point to sit next to Jack Goody at lunch in college so as to question him about the structure of African societies; the great teacher that he is, a question usually elicited a half-hour tutorial. I learnt ecology at the feet of Paul Ehrlich and had tutorials with John Waterlow on the physiology of under-nutrition.

What I was trying to do in my book was to complete a jigsaw puzzle about the circumstances in which rural people in poor countries are born, the way they live, and the manner in which they die, all seen through the lens of an overarching resource allocation problem. My inquiry involved proving theorems, studying quantitative evidence, listening to teachers like Arrow, Ehrlich, Goody, and Waterlow, and reading qualitative ethnographic studies.

I gathered material from professional journals, books, conversations, and newspaper articles; in fact everything I read or listened to spoke to my book. I worked on the book even while washing up in the kitchen or playing with my children or engaged in conversation at dinner parties. It's the nearest I have come to being obsessed; I wouldn't say people should avoid such obsession, but it's hard on one's family. Fortunately, it lasted only three years; once the book was published I was exhausted, but gradually returned to my care-free way of life.

Until my children left home I never had a study; I've always worked at the dining table, even when the children were young and noisy; I've been able to concentrate even while my children have played in the same room, often while they sat on my lap; noise doesn't affect my concentration.

I'm not boasting, merely stating a fact that's stood me in good stead. My generation of fathers weren't hands-on, unlike fathers today; but I can't ever remember my children not coming to me for help or succour on grounds that I was working; that's one thing I am proud of, because it meant my children never felt my work was more important than they. I was just their father, they treated me with affection; in recent years they have added an indulgent attitude toward me.

My wife and I have three children, two girls and a boy, all now grown up; our oldest child Zubeida is an educational psychologist, working for the Local Council in Sussex, our next child is Shamik, who is in his first year as an Assistant Professor in the Philosophy Department at Princeton University, and our youngest, Aisha, I still refer to her as our little one, is a demographer and is currently working in Malawi on reproductive health, for Marie Stopes International.

I met my wife, Carol, on a train to London, the 16:36 to Liverpool Street, on 16 April 1966. To put it bluntly, I picked her up; a week later, on our first walk together, it was a Sunday walk to Coton, you could do that through agricultural fields in those days, I told her we would get married; she said "we'll see", which to me meant "yes".

We married a couple of years later, as soon as she had sat for her final undergraduate exams at the LSE and I had undergone my PhD orals; it was unthinkable that we would live together before marriage, our parents would have been mortified.

One night some years ago, in 1989 if I remember correctly, at Stanford, I brooded about the peripatetic life I had led since childhood and felt desolate that I had no place I could call "home". And then it struck me that I was mistaking home for a place, that home for me was Carol; I've never again worried about the absence of a geographic root in my life. Carol is a psychotherapist and has recently taken early retirement from the University counselling service. She had a private practice for some time but gave it up to work exclusively for the University; we don't discuss economics over breakfast.

I enjoy teaching and have found it easy, probably because I've never been asked to lecture from textbooks; I use a lot of my own work in my courses, even undergraduate courses. So teaching has complemented my research; I feel as there are textbooks on the technicalities on whatever I happen to be teaching, it's pointless for me to work through them, particularly in Cambridge where there is a painstaking tutorial system.

I try to develop ideas on how to give shape to an incoherent thought by transforming vague ideas into formal models, based on my own work. That doesn't mean students necessarily like my way of doing things in class, but on the whole I get pretty good reports from them. Administration has never been a problem for me,

I have enjoyed that, as part of my job; I taught at the London School of Economics from 1971-1984, arriving as a young lecturer and becoming a professor in 1978.

I came here as a professor in 1985 and have been involved in faculty administration from the start. That was a salutary experience, because when I arrived here I found the Cambridge Economics Faculty to be awful; a number of significant figures from the 1930s, Joan Robinson, Nicky Kaldor, and Richard Kahn had wanted to protect Cambridge economics from the increased post-War use in the US of maths and stats.

They conducted a secret economics seminar to which only chosen colleagues were invited; that they used ideology to determine an economic argument was bad enough, but they also mistook technical tools for ideology, for which the university paid a heavy price for a long while. They were Keynes's disciples, and when I say disciples I mean DISCIPLES; as far as I can tell these renowned economists established an intellectual tone that not only led to James Meade's resignation from his professorship in political economy six years before he was due to retire, but also one that their immediate successors in the professoriate were at pains to follow.

But the successors had few intellectual credentials, and right through the 1970s they encouraged the appointment of mediocrities so long as they in turn showed a disdain toward modern economics. This was common knowledge in other universities of course, a matter of satisfaction there because it meant Cambridge wasn't competing in economics.

Nevertheless, I accepted an offer from Cambridge because of two reasons; first, my wife and I felt it would be easier to educate our children in Cambridge, and second, I had begun to realise that my work was increasingly taking a direction where I needed biological scientists to guide me. Cambridge was packed with outstanding biological scientists, the LSE had none.



St. John's College Chapel, Cambridge.

When I arrived in Cambridge in 1985 I thought I had entered a cesspool. My College St John's was my refuge, a fact I remind myself of whenever I find the

collegiate system obstructive to the university's intended functions. The Faculty of Economics in 1985 was wholly politicized and filled with mediocre people; they didn't lack self-confidence though; they were able to shelter themselves from outside competition by virtue of a lack of central directives from the university.

The college system also gave them separate power bases; that's one weakness of the collegiate system; say your college has a Fellow in economics; as he is the only economist in the Fellowship. His is the only voice that's heard in Hall or at Governing Body meetings; so you come to believe what he says about his subject or about others in his department. He tells you there are different methods of doing economics, even different schools of thought, each having equal merit. That convinces you, especially when he breathes the words "diversity of viewpoints" or "heterodoxy" in your ear.

I found that the two other economics professors at the time, Frank Hahn and Robin Matthews, both internationally renowned, the only two Fellows of the British Academy in the Faculty, were routinely outvoted in Faculty Board deliberations on matters having to do with teaching, research, and appointments. The electoral rules made no sense to me; the Faculty Board was all powerful. But in effect was able to elect itself, because it controlled who could vote in Faculty Board elections; so the process harboured two stable equilibria; it was the misfortune of the university that the Faculty of Economics had been kicked into the wrong equilibrium by Keynes' original disciples.

No doubt Fellows in other disciplines were told by colleagues in my Faculty that Hahn and Matthews were neo-classical economists, a term of abuse among progressives at Cambridge in those days. People in other disciplines wouldn't have been expected to know that by the 1970s the term had become meaningless; if you were from the Humanities, it wouldn't strike you as odd that there could be Schools of Thought in the quantitative social sciences. If you were a natural scientist you wouldn't care one way or the other, the Humanities and Social Sciences were impenetrable anyway.

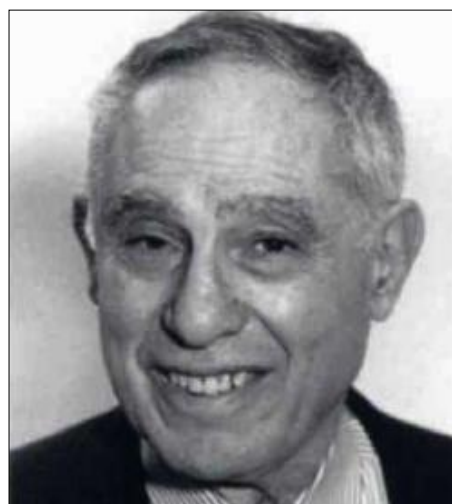
I was bewildered when I first arrived here, the Great and Good of the University appeared to believe all those faculty members in economics were professionally just as able as Hahn and Matthews; external credentials didn't seem to matter in Cambridge.

In comparison, LSE was a dream place; as it was my first appointment, I was protected there by my senior colleagues for several years, among whom were Peter Bauer, Terence Gorman, Harry Johnson, Michio Morishima, Denis Sargan, and Amartya Sen. That's a galaxy of stars; they differed politically but seemed to be united over what constitutes original work. So I knew something about the way academic excellence can be realised in a department.

The Cambridge Faculty of Economics and the allied Department of Applied Economics in contrast resembled a failed Court of early-Modern times. On the rare occasion I managed to squeeze in the right appointment, I had to take recourse to underhand practice. I hated that, it was corrupting. Matters changed once the Research Assessment Exercise was instituted by the government; the Faculty of

Economics scored a 4, which concentrated the minds of the university authorities; I guess over time I gained the confidence of colleagues in the university. I was Chairman for five years and enjoyed that greatly; today my Chairman is an outstanding theorist, someone I managed to slip through an unsuspecting appointments committee a couple of years after I had arrived here.

A failing Department of Applied Economics has been shut down, which has helped the Faculty to get a lot better; but ruining a department is easy, rebuilding it is extremely hard; it's taken more than a decade to make us look attractive. Today real stars from abroad express interest in moving to Cambridge; we have also a number of excellent young lecturers; but competition from other universities is great. I don't believe the Economics Faculty in Cambridge will be as dominant as it was in the 1950s and '60s, even nationally; LSE, University College London, and Oxford surpass us in quality and will continue to do so for some time. We are now pretty good though; that's not a bad turn of fortune for a Faculty that turned its back on the subject for so many years.



You ask whether the resurgence of Asia is sustainable; I'm no good at forecasting, especially about such weighty issues; but about the past I am a lot more impressed by the Enlightenment than my Western colleagues. China and India had their triumphant times, as did the Caliphates, but I think there is something distinctive about the Enlightenment which I don't read anywhere else in world history.

It's hard to put one's finger on what was so novel in the Enlightenment experience; the historian David Landes (right) has tried to nail it down. He suggested that because Europe was not a monolithic political entity, say in contrast to China, it was fertile ground for competition in ideas; recently Landes' observation came home to me when reading Kepler's travails. Kepler periodically had to find refuge in neighbouring states because of his religious beliefs; fortunately there were neighbouring states to go to.

The Enlightenment transformed reasonable knowledge into a universally useable commodity; people of all sorts had access to knowledge and could run for their lives to a place of safety only a few hours away if their findings were at variance with local orthodoxy. Intellectual historians no doubt say that this feature was present from time to time in other societies too, but daily life was influenced by the enlightenment project in Europe in a way I don't read or see elsewhere.

If you ask me whether Europe is likely to remain a world leader in science in three hundred years time, I wouldn't have the faintest idea, but the Enlightenment unleashed something I have not seen anywhere else in my understanding of history. Jack Goody and I are close friends, and although he demurs when I insist there was

something exceptional in the European experience, I can't help thinking that democratic institutions on a large scale didn't develop anywhere else previously.

It seems to me the Enlightenment was a necessary setting for that; it's useful to remember that for all the weaknesses in the data, average incomes didn't rise until pretty recently in any part of the world. Angus Maddison's estimates of GDP per capita over the past 2000 years are useful; they help to draw our attention away from the great mosques, temples, palaces, and castles of the past that dazzle us into imagining that those earlier civilizations must have been economic golden ages. They weren't, most people were abysmally poor, living at not much more than a dollar a day.



Maddison (above) reckons income per capita didn't increase much anywhere till about 1500 CE; until then, if averaged over the centuries starting from Roman times, GDP per capita even in Europe grew at a snail's pace. I worked it out to be about .002% per year over a 1500 period over most of the world. If the processes that led to the contemporary West began in 1500, at a time when Europe's income per head was only about three times as in the Roman period, then you have some explaining to do. The standard of living didn't rise in Africa, India or China, but it did in Europe.
