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Economics with a Moral Compass? Welfare Economics: Past, Present, and Future

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Abstract

This conversation between Nobel Laureates Amartya Sen and Angus Deaton, moderated by *Annual Review of Economics* Editorial Committee Member Tim Besley, focuses on bringing ethical issues into economics, and the implications that this has for the practice and teaching of economics. A video of this interview is available online at <https://www.annualreviews.org/r/EconMoralCompass>.

Tim Besley: I'm standing here principally because I'm a member of the Editorial Committee of the *Annual Review of Economics*, and we decided at our last editorial meeting to try and bring together Angus and Amartya to have the conversation that we're having today. I have to say, even though I thought it was a wonderful idea, I was skeptical even in my own mind that I'd be able to pull it off, but with the help of NYU we've done so.

The *Annual Review of Economics* is a relatively new member of the Annual Reviews stable, which has a very wide range of subjects covered. The reason it got off the ground so successfully was mostly to do with the efforts of Ken Arrow. Ken was the very first editor whom Sam Gubins, who is in the audience today, approached when the *Annual Review of Economics* was launched. I'm a second-generation editorial board member, and, like many before me, having a letter from Ken inviting you to join the board was sufficient to reply within about five minutes that one was going to do it, in spite of having any number of existing commitments. It has been a remarkable success, and I think we owe a great debt of thanks to Ken for that.

I'm not going to spend much time further introducing Angus and Amartya. Both have been very special figures in my life and mentors, and I met them both when I was a graduate student. If you had said to me then that I'd be standing here now, more than 30 years later, introducing them in this context, I think I wouldn't have believed you. It is wonderful that we have them here. I'm going to highlight three things that they have in common. They both were educated at Cambridge. They both are Nobel Laureates. But, I think more importantly, they're both deeply committed to making economics a subject that speaks to fundamental real-world questions, of really substantive importance. That can't be stressed enough, because it's people like Amartya and Angus who keep economics close to the kinds of things which I think the discipline was founded to study.

So, without further ado, I'm going to hand over to Angus, who is going to begin the conversation.

Angus Deaton: Thank you, Tim. Just one little thing about the ground rules. Tim is trying very much to stay in the background and to pretend to only be the chair of this thing, but I am hoping we'll have a much more three-way conversation than two-way conversation—

Amartya Sen: May I second that—

Angus Deaton: Okay. Also, when I agreed to do this, I thought, I'll go back and read what Amartya Sen has written, and I found a very dated vita. When I got past the first 26 books, I thought, we're going to need a team to do this, or a village perhaps. So I'm hoping Tim will pile in as we go.

Just a little bit about our relationship to Amartya: Neither of us were students of Amartya, in the sense that he did not supervise our dissertations, though Tim tells me that Amartya was formerly his moral tutor or something of the sort, in Oxford, for a brief—

Amartya Sen: Not quite that moral—

Angus Deaton: —or maybe tutor in morals, rather than moral tutor. But Amartya did not advise him, nor did Amartya advise me, so neither of us is standing here as Amartya's pupils in the usual, academic sense. However, for both of us Amartya's writing has been absolutely crucial in influencing us at very many points in our career. I think I met Amartya first in 1969, which is almost half a century ago, and even though we've worked on different things for most of our lives, that cross-influence has been incredibly important to me, as it has been for Tim.

I think that's true of many of our generation, especially in Britain, and of some of the generation before. I'm thinking of people like Tony Atkinson, Nick Stern, and Jim Mirrlees, who died very recently, sadly.

To get into the substance, let's start. Tim talked about Ken Arrow and his role in starting the *Annual Review of Economics*, and I heard [Amartya] about a year ago explain how you and Sukhamoy Chakravarty, as students at Presidency College in Calcutta, heard that Arrow had written this book, *Social Choice and Individual Values* (Arrow 1951). You couldn't afford to buy it because you were penniless students, but you got a bookseller of Calcutta to lend you a copy, provided that you promised to keep it clean. That sort of launched your career, or your interest in social choice theory, and I think Arrow has been a very important influence on your life ever since.

Amartya Sen: Oh, totally. That was my first year in Calcutta, as an undergraduate in Presidency College. I'd just come from my school in Shantiniketan, and Sukhamoy Chakravarty—an extraordinarily gifted guy—was already well established in Presidency College. We wanted to read new books faster than they came to the library, and well beyond what we could buy. We would go to the local bookshops on College Street, and they would lend us this book or that for a day, covered in an old newspaper so that we didn't soil the cover. It was a very generous thing to do. I think the most important book that I read under that rubric was Ken Arrow's. Actually, that was about six months after the book came out, so pretty early, and I remember sitting down with Sukhamoy and trying to figure out how Arrow got those extraordinary results, particularly his spectacular "impossibility theorem" showing that we cannot combine individual preferences over states of affairs into a social ordering, satisfying certain simple and apparently minimal conditions. How does the proof work, and could it be shortened? Now we know, of course, that it can be very much shortened, using insights that can be derived from Arrow's own thinking. Arrow's social interests, his analytical creativity, and his elegant use of mathematical logic all had a profound impact on me.

Another book, which is not connected with Ken Arrow's subject matter—nor in general with social choice theory of which Arrow was the founder in its modern form—and which had, at that time, a big influence on me—was Ken Galbraith's book called *American Capitalism* (Galbraith 1952). We were both, Sukhamoy and I, "lefties"—much influenced by Marxian analysis (extensively studied in Calcutta then)—and I found that I had much to learn from Ken Arrow and social choice theory, and in a rather different way also from the other Ken, Ken Galbraith. When I look back and think about the ideas that contributed to my social understanding (supplementing what we got from mainstream textbooks for our class), Arrow and Galbraith both gave me a lot, in addition obviously to Adam Smith, John Stuart Mill, and of course Marx, with each of whom I already had familial relations.

I do want to come back to Ken Arrow, because no one had as big an influence on me as Arrow, vastly enriching my growing involvement with classical political economy, particularly Marx—but also Smith (I was interested in both from my school days). There was, however, something seriously missing, I was beginning to consider, in the Marxian line of thinking—rich as it was. Maybe politics? It would be absurd to think of Marx as being apolitical, but he was basically uninterested in political organization, while having deep insights in political philosophy. Arrow's social choice theory, with its foundational involvement in the relation between people's preferences, interests, desires, and values on one side, and democratic social choice on the other, supplemented classical political economy beautifully. It also made me wonder whether, in the eighteenth century, the mathematician Condorcet's interest in establishing an early form of social choice theory was influenced by his wanting to go beyond Adam Smith's economics—on which Condorcet was an expert (and not just on committee decisions with which he is more usually associated). Arrow came to me as a flood of illumination.

If Arrow filled a big gap in my naive thinking, Galbraith filled another, in particular how to keep in check privileged people with their particular social ambitions through a system of countervailing

powers. Each interest group may press the society to go in its favored direction, but the presence of many interest groups restrains the dominance of any one of them. If Arrow can be seen as a positive supplement to Marx (adding to what I had got from Marx), Galbraith was, in a more negative way, a denial of Marx's temptation to rely on his favored set of values, which he saw as good for society. Even if the idea of the "dictatorship of the proletariat" may sound attractive in an egalitarian way, it can play havoc with building a pluralist society.

Of course I did get a huge amount from Marx. This included a basic concern with the underdogs of society. But there were also many other things in Marx, such as the philosophical idea of "objective illusion"—he talked about it as "false consciousness." Even though the sun and the moon may look—in objective observation—as equal in size, they are not; and similarly, what the laborers are given—their wages—and what they contribute to production may look similar in size in market economics, but they are not. Also Marx provided a clear understanding that payment according to needs would be a very different principle from rewarding work and labor. Marx discussed the plurality of moral principles extensively in his last substantial work, *Critique of the Gotha Program* (Marx 1875). He criticized the Social Democratic Party of German Workers, which produced the Gotha Program, for being concerned only with distribution according to work (seeing working people as "nothing but workers"), ignoring the varying human needs of people. In this he came much closer to what we call welfare economics now. A theory of justice, I was beginning to consider, could start from either end—fulfilling needs or fairly rewarding work.

So surely, there was a recognition by Marx of moral plurality. And yet he did not get very interested in countervailing powers, which is central to the practice of politics. Marx shared the common illusion that if somehow you get dedicated people to take charge of the government, they are going to govern things well. Ken Galbraith's *American Capitalism*, which in a sense is a praise of capitalism (one aspect of it), helped to shatter the illusion. He presented quite a profound understanding of the corruption of power and the need to restrain even dedicated people, including those dedicated to high political objectives. I had borrowed Galbraith's book for four hours from a bookshop in Calcutta (this would have been early in 1953) and I got hugely absorbed in it, as I was trying to finish reading it in a coffee shop. I tried to explain to the coffee shop manager that paying for one cup of coffee was sufficient for me to earn the right to sit there for four hours and reading this new book. I didn't have more money than that, and I wanted to read the book—and furthermore, the light was very good on my table. My persistence worked.

I'm so glad that Angus brought this up. Those were very formative periods in the development of my understanding. Among the many influences were the ideas that I got from Arrow in particular (they established a life-time interest in me), but this was supplemented by other contributions I could read, such as Galbraith's. In the newly independent India, which was trying to be a successful democracy, the feasibility of consistent democratic politics was a much discussed issue. Could we have democratic consistency? In many academic discussions (Calcutta was full of academic politics at that time), a common interpretation was that Ken Arrow was showing that you couldn't have democratic consistency. But it was not, it seemed to me, what he was actually showing. There was a need for some "negation of negation" (to borrow from Hegel), I was convinced. While trying to dispute that pessimistic understanding of Arrow's impossibility result, it became clear to me that I should pursue this issue in a bigger way, in addition to whatever mathematical propositions I might want to pursue (they were of course fun).

Angus is right to think that it "sort of launched my career"! I was a first-year undergraduate in Calcutta then—I was young (I think I was around 17), but rather determined. After two years of undergrad education in Calcutta, I went to Cambridge, and almost no one encouraged me in my interest in social choice theory. Some were frankly hostile. Joan Robinson, who was personally very fond of me, tried to persuade me that to get into social choice theory would be a complete

waste of time. Richard Kahn was totally hostile. Nicholas Kaldor did what he normally tended to do, namely encourage you on the ground that a certain amount of folly in your life is necessary for character building. The only one who took an interest was, oddly enough, a Marxist, namely Maurice Dobb—perhaps the most famous Marxist economist in Britain then. He took a lot of interest in it. He was the only one among the Cambridge economics faculty who lectured regularly on welfare economics, and indeed a number of his fellow left-wingers regarded that to be a great mistake—“a bourgeois folly”—on Maurice’s part. Dobb was rather allergic to mathematical reasoning (like many other members of the Cambridge Economics faculty at that time), but he wanted me to explain to him the substance of Arrow’s theorem and why it was interesting.

The other teacher taking a somewhat sporadic interest in my involvement with social choice theory was a semi-Marxist, named Piero Sraffa. He had been very close to Antonio Gramsci, the great leftist intellectual, who established the Italian Communist Party and founded the extraordinary journal, *L’Ordine Nuovo*. I remember Bob Silvers once telling me that if the *New York Review [of Books]* reached the [same] level of originality as *L’Ordine Nuovo*, then he would be very pleased. I can’t think of a higher compliment, coming from somebody like Robert Silvers, the founder (along with Barbara Epstein) of the *New York Review* who ran it in its heyday. That was a very long heyday going on, happily, over decades and decades.

I am sorry, Angus, I’m taking a lot of time.

Angus Deaton: That’s all right. It’s your memoirs we’re talking about here, not mine.

Amartya Sen: No, the idea was going to be a fairly divided conversation between you and Tim and me!

Angus Deaton: I think it’s terrific for this audience, because these names—Joan Robinson is probably known to many people here, but many of these others would not [be], like Maurice Dobb, who was regarded as rather unsound in spite of being Marxist; he was rather on the right.

Amartya Sen: Indeed. In fact, that’s in a sense correct—he was never taken to be a leftist extremist, even though definitely a Communist. When he first moved to Trinity College, he was a member of the British Communist Party already. Dennis Robertson—who always described himself as a liberal, but in fact was a conservative—offered Dobb this job on behalf of Trinity. Maurice accepted it immediately. He was then a research student at Pembroke College. He went home, and being a good Englishman, he wondered, “Shouldn’t I have mentioned that I’m a member of the Communist Party?” Then he wrote a letter of apology to Robertson—a very English letter: “When you offered me this job, I was so overwhelmed with the prospect of becoming a teacher in Trinity that I overlooked to tell you, for which I apologize, that I’m a member of the British Communist Party, and if after knowing that, you decide that you want to withdraw your offer, I would like you to know that I would not hold that against you.” Dennis Robertson replied, “Dear Dobb, So long as you give us a fortnight’s notice before blowing up the chapel, it would be all right.”

Anyway, like Dobb, Sraffa too encouraged me to go on doing what I wanted to work on. Sraffa had a powerful philosophical mind and his interests far exceeded economics, not to mention standard economics. He was influenced by Gramsci but had also debated him. He had a profound influence on Anglo-American philosophy, through being the leading influence in making Ludwig Wittgenstein see the limitations of his classic book, *Tractatus [Logico-Philosophicus]*, with rigid rules and regulations about language use (Wittgenstein 1922). After Wittgenstein, persuaded by Sraffa—and also Frank Ramsey—accepted a much broader understanding of the rules that govern language use, he developed a new theory of analytical philosophy, which found its expression in his Cambridge classes but also in his pioneering monograph, *Philosophical Investigations*

(Wittgenstein 1953), which developed an almost anthropological understanding of what makes communication possible.

That was Sraffa versus Wittgenstein, but what was Sraffa's debate with Gramsci about? Mostly Sraffa saw himself as something like a disciple of Gramsci, but there were exceptions. Gramsci took the view, like many Marxists do, that liberty—or “bourgeois liberty”—is not important, which Sraffa disputed. The debate was particularly important because it was taking place during the fascist rule. Sraffa wrote a long letter to Gramsci, saying that “beautiful or ugly, likable or not, bourgeois liberty, which you decry, is the thing that the Italian proletariat needs over everything else.” “Any other conquest,” and I'm trying to remember Sraffa's exact language here, “that the proletariat wants has to be built on the solid basis of ensuring what you call bourgeois liberty.”

Of course, this judgment had a profound connection with social choice theory. My own work was very much connected—certainly a part of my work—with liberty and how to accommodate it in democratic social choice. There is often no problem, but it can be shown that with particular configurations of individual preferences, ensuring liberty may even demand restraining the Pareto principle, requiring us to reject what is unanimously chosen over certain pairs of alternatives.

Angus Deaton: I want to come back to that, but could we say a little bit about Joan Robinson? You showed up at Cambridge as an undergraduate for a quick degree, and became a graduate student quite young, and Joan Robinson actually supervised your thesis on the choice of techniques. You wrote about her [that] “she was totally brilliant but vigorously intolerant.” Given how gentle you usually are, these are very strong words. Do you want to talk a little bit more about her? She's often regarded as the most distinguished woman in economics, who should have gotten the Nobel Prize but never did.

I get the sense she didn't have much lasting influence on you, that she derailed you into writing a thesis on something you weren't particularly interested in.

Amartya Sen: Right.

Angus Deaton: Maybe that's not true.

Amartya Sen: That's absolutely true. I don't know how to describe a person as other than “vigorously intolerant” when she told me, as my PhD supervisor, that “I have read the first chapter and a part of the second, and it's the kind of thing that will be praised by established economists, and you will have no difficulty in getting your PhD.” At Cambridge, your supervisor is not one of your examiners, unlike in America. She said, “I'm not going to read the rest of your thesis.” I said, “But you're supposed to say that the thesis is fit to be submitted for the PhD.” She said, “I will say it.” So I asked her, “On what basis?” “On the basis of what I have read already.”

The thesis had eight chapters, by the way. She said, “It's good. Clearly, clearly, it's good. Good in the way that these people understand it. But it's not worthy of you. You have to promise me that someday you will come back to real economics.” I don't know whether “vigorously” or not, but she was certainly intolerant of what I wanted to work on.

I had an odd relationship with her, but I liked her very much. She was very kind to me, took great interest even in my personal life. Later on, when my marriage with Nabaneeta broke up, she commanded me to come and see her, and told me that Nabaneeta and I should not go for a divorce. I didn't say, “None of your business.” She said, “It's a bad thing once you have children”—and we did have two children—“it's very bad for the children.” In a sense, she was describing her own life, when she didn't break up despite the distance between her and her husband. I knew that she never wanted anything other than the best thing for me, as she understood it.

She was very kind to me throughout the emergence of our different views of economics. It is a long history. In my first year, she was not my supervisor. In my second year, I had both Maurice Dobb and Joan Robinson. Joan told me that she had just finished writing a book called *The Accumulation of Capital* (Robinson 1956) and that, if I liked, instead of my writing essays for her, I could read one chapter of her book each week and discuss it with her in my supervision time. Which I did. It was a very pleasant way of spending time—engaging too. But at the end, I had to tell her that I did not come to like her book very much (I don’t think I quite used that expression). I also told her why I didn’t like the book as a whole (it was too much on minor issues in capital theory and too little actually on capital and the economy in general). I did tell her that I liked bits of it and enjoyed reading all of it. Her reasoning was very smart and her arguments were often very enjoyable to read.

It was actually a politically inspired book, of an apparently left-wing kind. Her view of left and right was, I thought, very peculiar, but I did pay attention to her when she told me that by not taking an interest in the focus of her book (particularly whether capital can be seen as a factor of production) and taking an interest instead in such things as welfare economics and social choice, I was showing myself to be unsympathetic to the working classes. I remember on one occasion trying to tell her that if there is a downfall of capitalism, it won’t be because of some subtle mistake in capital theory; it will be because of, to quote A.C. Pigou (1920), the “mean streets” and “withered lives” that capitalism makes many people have. And that relates to welfare economics and social choice. This upset her very much.

I don’t think she understood my take on capitalism at all, and she thought that a real critique of capitalism had to be connected with the understanding that capital could not be seen as a factor of production. And consequently, profit could not be seen as the reward to capital (a good old-fashioned subject of little interest in a world where the efficiency and justness of the market economy were taken to be the central issues in the “pro” versus “anti” capitalism debates). I was completely unable to make Joan see what I was trying to say, but she was—and I appreciated this fondly—keen on getting me right whenever we disagreed. She was, in this respect, very different from my other teachers—Maurice Dobb and Piero Sraffa, with whom I also sometimes disagreed. She was always keen on arguing with me—to remove my follies—and it was, in that sense, a very engaging relationship.

The thesis that I was persuaded to do was on choice of techniques, in which I tried to bring out the different long-run consequences of choosing different techniques of production, particularly in terms of what they did respectively to economic growth. Joan liked the epistemic role I gave to economic growth, but she did not quite like the fact that in terms of social ethics I could not go exclusively for a growth focus (she also hated my use of capital as a general economic resource in some of my models). She took a position—which has actually become very popular in India now, not coming from the left these days, but from the right—that what you have to concentrate on is simply maximizing economic growth. Once you have grown and become rich, then you can do health care, education, and all this other stuff. Which I think is one of the more profound errors that you can make in development planning. Somehow Joan had a lot of sympathy for that position. In fact, she strongly criticized Sri Lanka for offering highly subsidized food to everyone on nutritional grounds. I remember the phrase she used: “Sri Lanka is trying to taste the fruit of the tree without growing it.”

Angus Deaton: This is remarkable, as you talk, because—I came there much later than you did, but those were very powerful personalities. When anyone goes into graduate school, they usually have no idea what they want and they’re reshaped by the people around them, which is why people try to go to really good graduate schools. You really, in some sense, came out as you went in, which

is a fairly remarkable thing. You'd thought about welfare economics. You'd thought about social well-being. They were interested in production, and it didn't really move you at all. You obviously absorbed a lot from them—

Amartya Sen: I was very lucky in that respect. I have to give credit where it's due. I got some strength from the fact that I had, on one side, people whose politics were similar to mine, who were on the left while being very interested in human beings, in particular Maurice Dobb and Piero Sraffa. And, on the other side, there was Pigou—no longer very active by the time I came to Cambridge, but very much a venerated Cambridge icon and in many ways the guru of welfare economics, who also took a deep interest in inequality and poverty. Some big contributions on these topics will come later on from Tony Atkinson, but as he recognized, the Atkinson measure was inspired by Pigou. Pigou was deeply concerned about poverty. I have already used the words he chose to define economics. It is such a good way of understanding economics. As Pigou [1920 (2002), p. 5] put it: "It is not wonder, but rather social enthusiasm which revolts from the sordidness of mean streets and the joylessness of withered lives, that is the beginning of economic science." I must mention here that I am often reminded of Pigou when I read your own writings, Angus, and that is indeed where economics has to begin.

Pigou also talked about the environment and pollution and so on. It was really wonderful economics. I knew something about Pigou already in Calcutta. But when I arrived in Cambridge, I was told that he was a right-wing economist, because he didn't agree with John Maynard Keynes about the causes of unemployment! In fact, when I went to Stockholm after this Nobel stuff, they asked me in a public interview, "What's your position in macroeconomics?" I said, "I don't do macroeconomics." I've never done it, and I took the liberty of quoting a common friend of ours, Frank Hahn, that the subject doesn't really exist, because macro must be the totality of micro things. That didn't go down well, and they asked me, "Surely, on Keynes versus Pigou, you are on the Keynesian side?" I said, "On the unemployment issue I may well be, but if I compare an economist like Keynes, who never took a serious interest in inequality, in poverty, in the environment, with Pigou, who took an interest in all of them, I don't think I would be able to say exactly what you are asking me to say." Coming back to my student days, the ideas of Pigou helped me a lot.

More personally, another economist whose presence was very pleasant for me was Dennis Robertson. He was a big figure in Cambridge, and I liked him greatly, though we sometimes disagreed and had pleasant arguments. We agreed on certain things: We agreed on the relevance of utility—pleasure and pain—and this was a big thing in those days, I very much agreed with Robertson that interpersonal comparison of utility was a reasonable thing to do. He was a conservative and I absolutely was not, but I had a very close relationship with him.

I remember my last dinner with him, which was at David Champernowne's place in 1963. I was going to India for a month. He said, "Do you know, Amartya, no one knows the right tune of 'The Owl and the Pussycat'? My great-grandmother taught me that." I said, "I want to hear it." David Champernowne joined me in demanding that. And he sang. At the end of it, he said, "When I'm dead, no one will know the correct tune of 'The Owl and the Pussycat'." Two days later I went to India—Dennis's last words to me were "when you come back, we will continue our argument." When I was back in England—I still remember the occasion. I was nearly missing my train to Cambridge, I think, at King's Cross (on my way from the airport to Cambridge). I saw Michael Posner, who was in the same compartment and who asked me if I knew that Dennis Robertson had just died. I felt total grief. Not that of a student, because unlike Dobb and Sraffa, he wasn't my teacher, really, but as a friend, even though he was quite elderly, which means a bit younger than I am now! I was less than half his age, then. I feel very nostalgic when I think about him and continue to miss him.

Angus Deaton: He's a name that I imagine very few economists would be able to tell you anything about today.

Amartya Sen: Dennis Robertson? I imagine so, but he was such a fine person—and a very good economist too.

Angus Deaton: I'd like to go back a little bit further, even. In your childhood in India, you lived through a very traumatic period of Indian history. You saw communal violence. You've written about murder, communal murder. You lived through the Bengal famine. You lived through the partition of Bengal. You had a very serious medical problem of your own, which very nearly killed you. All of these experiences have echoes in your work, or I certainly think they do, particularly its very broad perspective in thinking about human well-being beyond its material basis. Maybe we'll pick up these things as we go, but would you like to elaborate on that a little bit?

Amartya Sen: Two of them, witnessing the famine and seeing the barbarity of the communal riots, were devastating experiences. The cancer, though painful and disturbing as an experience, I regard as a victory, since I was given a 15% chance of living at most five years, and that was 67 years ago. I think I did all right on that one. But the Bengal famine—the striking thing in that terribly saddening experience was that the economics of it seemed easy to grasp and disaster was easy to prevent. It was the last famine in India, four years before the empire ended. It was a completely avoidable famine. Basically I had figured out on the basis of the little information I had (that indeed everyone had) that the problem was not that the British had the wrong data, but that their theory of famine was completely wrong. The government was claiming that there was so much food in Bengal that there couldn't be a famine. Bengal, as a whole, did indeed have a lot of food—that's true. But that's supply; there's also demand, which was going up and up rapidly, pushing prices sky high. Those left behind in a boom economy—a boom generated by the war—lost out in the competition for buying food.

That was a time when the Japanese were at the border of Burma and India. In fact, part of the Japanese Army was in India, in Imphal. The armies were moving in: The British Indian Army, and also the British Army, and later the American [Army], were all buying food. They, and all the people hired for war efforts, including military construction, were consuming a lot. There were war-related constructions generating new jobs and incomes—for example many aerodromes were being built. There was a huge demand-fed price rise, which was further enhanced by panic and market manipulation of the buying and selling of food. People can't live on the fact that there is a lot of food. They live on their ability to buy the food they need—competing with others in the market economy.

That basic understanding of the causation of the famine wasn't original to me at all. Bengali cultural magazines—less censored than the Bengali dailies—were writing about this. The Bengali newspapers, the dailies, were banned from publishing anything about the famine. It would have undermined the Raj and impeded its war efforts. All you could do was to read the monthly cultural magazines carefully (as a handful of people did). My grandmother used to read regularly a couple of those magazines. I was around ten at that time, and very interested in what was going on.

Later, 30 years later, when I did some work on it, I kept on telling my colleagues and students that I had read about all this somewhere in my early days—and now I was trying to sort out the roughly formulated ideas from cultural magazines, by using some economics. When my famine book came out, some of my friends said, "This is not original. People knew it." My claim was, "That's exactly what I have been saying. It's not original. It has been aired many times before in some form or other. The point is that the understanding of it in these commonsense lines had not been seen as serious economics, and yet it could be neatly reformulated in economic terms."

When the famine came and the Raj went on—we had, originally, a very uncaring viceroy who was totally unsympathetic, called Linlithgow. He came from the same region as the only person, Tam Dalyell, through whom, as it happens, I did try a little to influence British politics. Linlithgow came from my friend Tam Dalyell's region of Scotland, West Lothian. Tam, by the way, was the chairman of the Tory Club in Cambridge when I first met him. He became a close friend. He also moved to the left steadily and ended up as a powerful spokesman for a radical part of the Labour movement—aside from becoming “the father of the house” (the Commons) with a strong critical voice. There were a lot of distinct inputs (mostly internal to Britain) in his move to the left, but within that bag there was also his good understanding of the blunders of the Empire. I enjoyed talking with Tam greatly—and as it happens, also with his mother when I visited their Scottish home—the Binns (I visited them regularly).

Linlithgow took no interest in such things as famines. There was a big difference when toward the end of the famine, [Earl] Wavell came in as the new viceroy. On his very first day, he looked at the official papers and wrote a note saying, “I ought to go to Bengal”—which he did soon enough. Linlithgow had not considered that possibility in the two years of famine under his leadership.

There was something puzzling about the political aspect of the famine: How did a country ruled by the foremost democracy in Europe allow such a famine? It is very important in this context to see the history of a newspaper called *The Statesman*, which was a British-owned Calcutta daily and was known as the best newspaper in India. The editor of it in those days was Ian Stephens. I came to know him, later on, quite well, because he became a Fellow of Kings College when he returned to Cambridge. The Brits censored all Bengali newspapers and restricted them, but they did not formally censor this glorious English paper, appealing instead to its patriotism—for it not to criticize the Raj. The British-owned, English-managed paper did just that for a long time, for the sake of the war (when any criticism of the Raj would be seen as weakening the local support for it). *The Statesman* took a lot of care to make sure that nothing about the famine would be discussed in prose, but Stephens, who was getting increasingly enraged by the failure of governance, did publish photographs of people suffering from destitution in Bengal in the summer of 1943 (the photographs were observations without discussion or critique).

Ultimately, one day—and I even know which day it was, the thirteen of October in 1943—Ian Stephens firmed up his growing doubts about the unacceptability of silence and the absence of criticism of the Raj. He saw clearly that he was betraying his profession. He was a journalist who wrote nothing about the most important—and gigantic—calamity around him (not going beyond silent photos of grief). He decided he couldn't live with that. So, on the fourteenth of October, and after that on the sixteenth again, came vitriolic attacks on the British Empire's policy on the famine, with news coverage to back up the editorial comments. India didn't have a parliament then, but Britain did. The British Parliament had not discussed the man-made disaster before Stephens spoke. All that changed immediately after *The Statesman's* editorials and the news reporting that went with it.

Apart from the callousness of colonial rule, there was also ignorance from which the rulers in Westminster suffered. This is similar to what would happen—I don't want to go into that now—in the Chinese famine in 1958–1962, when 30 million people died, but Beijing didn't know very much about it (the fear of punishment had stifled the voice of dissent of party officials in the rural localities). In India the governmental reports, including those from the viceroy's office, had made sure that Westminster didn't know very much. But after *The Statesman* editorials, the gravity of the situation was discussed in the Parliament, and within a few days there was a resolution to intervene. And within a few weeks official famine relief was instituted, for the first time in this famine. This was, of course, after the famine had gone on for nine months with more than a

million people already dead. Ultimately, nearly three million people died of that famine, since the epidemics precipitated by the famine raged on for many years after the famine.

For those who are interested, Ian Stephens (1966) wrote a book called *Monsoon Morning*, which is about his experiences, his growing doubts and his ultimate revolt. He was naturally rather proud of the change he brought about. The only time I have written an obituary in the *Times* in London was when I saw that his official obituary in the paper didn't even mention his role in helping to end the famine. So I sent a supplementary obituary, which the *Times* did publish.

By the time I was an undergraduate at Cambridge, Stephens was in Kings College as a senior research fellow, and I went to see him. I couldn't find him at first. His door was unlocked and I came in, but he was on his head. A habit he had picked up in India, doing yoga. He was on his head in one corner of the room, looking very much like an ancient statue of some kind. My entry got him down from there and upside-up, and then we chatted. Later on, I must have had six or seven meetings with him, when we talked about what happened in Calcutta. He was very proud of that period of his life.

The person who had talked with me about Ian Stephens' presence in King's was E.M. Forster, Morgan Forster. It sounds like showing off a bit, but I did know Forster well (largely because of being linked with him through the allegedly secret club called the Apostles). I told him, "I would like to meet Ian Stephens, can you introduce me?" He said, "Certainly I can introduce you. I know him well. But you should know, he's not a friend of India." What Forster meant is that after partition, the British residents in India who did not immediately go back to Britain divided themselves in different camps, and Stephens was definitely in the Pakistani camp and very critical of Indian policies, particularly about Kashmir (his leaving *The Statesman* and going to Pakistan must have been connected with his political disapproval of what was happening in India). As it happens, his being on the Pakistani side mattered to me not at all. The lives that he had saved were of Hindus and Muslims—both—all over Bengal. The benefits were not religion-specific.

However, what happened was sad for Stephens. He went to Pakistan for a while and was very vocal at that time about India's political errors—including in Kashmir. But in Pakistan Stephens felt quite rebuffed. He had this rather British view that Muslims were less hostile to the Empire, unlike the Hindu revolutionaries, which is not exactly true. In fact, in E.M. Forster's (1924) *Passage to India*, Aziz, the Indian protagonist, is clearly a Muslim. But that was Stephens' expectation as he went off to Pakistan.

Then he came back to England and got a fellowship at Kings. And to return to my experience, Stephens was very willing to talk with me about the famine. There were several things I learned. One is that press freedom has something to do with restraining famine. I learned also—which I knew as a child—that you could have a famine with a lot of food around. And how the country is governed made a difference. The British did not want rebellion in Calcutta. I believe no one of Calcutta died in the famine.

People died *in* Calcutta, but they were not *of* Calcutta. They came from elsewhere, because what little charity there was came from Indian businessmen based in Calcutta. The starving people kept coming into Calcutta in search of free food, but there was really not much of that. The Calcutta people were entirely protected by the Raj to prevent discontent of established people during the war. Three million people in Calcutta had ration cards, which entailed that at least six million people were being fed at a very subsidized price of food. What the government did was to buy rice at whatever price necessary to purchase it in the rural areas, making the rural prices shoot up. The price of rationed food in Calcutta for established residents was very low and highly subsidized, though the market price in Calcutta—outside the rationing network—rose with the rural price increase.

The Raj had feared uprisings of Calcutta people during the war, but the ration card–holding people of that big city had no cause for personal grievance, which suited the Empire. It was a “divide and rule” of a different type—distinct from the Hindu-Muslim divisions also cultivated in the Raj. The “haves” were docile and the “have-nots” starved and often died. There were a lot of things I learned from talking with Ian. I don’t know whether you want to go more into this? Or what else?

Angus Deaton: That, in some ways, is perhaps your most famous of what I think of as this long-running streak of empirical works that you’ve done from very early on, even from your thesis, eschewing econometrics but making a very good job of interpreting the data in ways that are enormously illuminating.

Amartya Sen: I had to eschew econometrics because I didn’t know much of it. When people would ask me why I don’t use econometrics, I had to say, “Because I don’t know any!” They would sometimes ask, “But weren’t you the President of Econometric Society?” Indeed I was, quite some time ago (Tim Besley, by the way, has served in that role very recently), but there is, of course, something to explain here. The Econometric Society cultivates mathematical economics as well as econometrics. And its fellows and officers come from both streams. I did not come from the econometric stream, but from the other. Econometrics is connected with analyzing empirical data (and investigating sophisticated techniques for doing that), whereas mathematical economics, while obviously mathematical, may not be empirical at all.

While I have used mathematical methods in my work (quite extensively in social choice theory, but also in normative measurement and in decision theory), my empirical work has been quite informal—I could describe it even as pedestrian. Unlike Angus here, who has been so brilliant in using both econometrics and mathematical economics (his versatility would have been particularly useful for him when he was the editor of *Econometrica*, the main journal of the Econometric Society), my specialization has been in economic theory with the use of certain types of mathematics (particularly mathematical logic). This has not, however, inhibited me from trying to do empirical work, using classical—and elementary—statistical reasoning applied to such subjects as poverty, inequality, and starvation. When we were young, there used to be huge and heated arguments, particularly in Cambridge, about whether mathematics is, or is not, useful in economics. It would be hard to find a sillier subject for debate. Math is sometimes very useful for economic analysis, and sometimes it isn’t at all. There is nothing particularly interesting to discuss here.

Angus Deaton: You’ve done a lot of very important empirical work. That book was one which many pure economists would claim as their own in the sense of saying this is an economic problem; it’s not a problem of not having enough food. We have to think about the allocation of resources and entitlements.

You talked about Arrow at the very beginning, and I want to come back to some of the more abstract thinking you’ve done in, for instance, your book *The Idea of Justice*—which is what, ten years old now?

Amartya Sen: It is exactly ten years old (Sen 2009a).

Angus Deaton: You play off Arrow and Rawls, who was very important to you, too, with Adam Smith, in some sense. So, you’ve got Amartya Sen stirring the pot of Rawls and Arrow, and Adam Smith plays a big role in that—

Amartya Sen: Perhaps the biggest role.

Angus Deaton: —though presumably you never taught a course with him.

Amartya Sen: With Adam Smith? I tried, but failed!

Angus Deaton: You tried. Yes, that's right. When I grew up in Edinburgh, he was a very obscure figure. No one really paid much attention to Adam Smith, and that's really changed quite a lot in recent years. They're putting statues of—

Amartya Sen: When, many years ago, I arrived with my wife Emma in Kirkcaldy and tried to find Smith's house, we couldn't locate it (spotting it has become easier now with the marked directions that have been put up recently, mostly arranged by Gordon Brown, the former British Prime Minister—a great devotee of Smith). We went to Kirkcaldy's tourism center and asked, "Could you tell me where Adam Smith's house is?" They said, "Who is that you're talking about?" I said, "Well, what is Kirkcaldy famous for?"

Angus Deaton: Linoleum is the answer.

Amartya Sen: Right, linoleum was indeed the answer.

Angus Deaton: Much more than Adam Smith.

Tell us a little bit about where you stand on those issues. In that book you're taking a different position from Rawls. You can do things that Rawls could not do, like talk about global injustices. You use some of Ken Arrow's framework to argue that, and you make great use of Smith's (1759) impartial spectator as a way of thinking about justice, too. Maybe you could talk about some of those issues.

Amartya Sen: Smith was very much a companion of mine and a big inspiration, beginning at the time when I was just an undergraduate in Presidency College in Calcutta. Of course I was also carrying the influences of Marx and, on particular issues, those of many other economists like Ken Galbraith (as I discussed earlier). The biggest impact on my thinking had come from my growing involvement with social choice theory—through the works of Ken Arrow.

My work, over the years, in social choice theory had to be constructive (Sen 1970). Arrow's results were largely negative, and I had to show, first, that they were valid (some commentators had sown doubts on that) and indeed more than that—in the sense that they could be further extended by showing the redundancy of some of Arrow's axioms (for example, getting the impossibility despite dropping the requirement of "collective rationality"). And then it was necessary to show that Arrow's social choice framework could be used not only for negative conclusions but also very constructively, through some reasonable variations of his axiom set, which I did in the 1960s (Sen 1970) and further developed in my later works, which are put together in Sen (2017). This helped to provide a solid analytical basis for systematic social welfare judgments and policies based on social choice reasoning and scrutiny. The proofs were often quite mathematical, but their intuitive implications were easy to grasp—and use.

Through this long period of social choice work, Smith stayed with me as a companion and advisor. Nobody lectured on Adam Smith at Presidency College, but I read first *The Wealth of Nations*, and then the *Moral Sentiments* in my little room in my YMCA hostel. They had a profound impact on me. Later I would become more and more Smithian, even as a social choice theorist. There is—this is an advertisement really—an edition of Smith's *Moral Sentiments* which I see as "my edition," because I worked hard to write a long and explanatory introduction to it (Sen 2009b). That's the Penguin commemorative edition on the two hundred and fiftieth anniversary of *Moral Sentiments*, published in 1759. I had underestimated how much work writing a reasoned and explanatory introduction would demand, but I was lucky to finish the work just in time for the commemorative edition to be published within 2009. I think it came out on the twenty-ninth of December of that year!

There, I discussed why there really had never been an economist like Smith, and there probably never will be. I'm so glad that Angus asked that evocative question. There were these formal problems (many of them Arrovian) which interested me and didn't interest Smith. What interested him most were basically human problems, including the title of this seminar, which Tim chose, about welfare past, present, and future. That's really what Smith was about. You know, he never used the word capitalism—or any other simple categorization of institutional systems like that.

He discussed why you have to think pragmatically about the different institutions to be combined together, paying close attention to how they respectively work. There's a passage where he's asking himself the question, Why do we strongly want a good political economy? Why is it important? One answer—not the only one—is that it will lead to high economic growth (this is my language, not Smith's). I'm not quoting his words, but he talks about the importance of high growth, high rate of progress. But why is *that* important? He says it's important for two distinct reasons. First, it gives the individual more income, which in turn helps people to do what they would value doing. Smith is talking here about people having more capability. He doesn't use the word capability, but that's what he is talking about here. More income helps you to choose the kind of life that you'd like to lead. Second, it gives the state (which he greatly valued as an institution when properly used) more revenue, allowing it to do those things which only the state can do well. As an example, he talks about the state being able to provide free school education.

As Smith [1776 (1910), p. 375] put it in the *Wealth of Nations*, the task of political economy is the pursuit of “two distinct objects: first, to provide a plentiful revenue or subsistence for the people, or, more properly, to enable them to provide such a revenue or subsistence for themselves; and secondly, to supply the state or commonwealth with a revenue sufficient for the public services.” We see here the importance that Smith, often taken to be the guru of capitalism, attached to public services to be provided by the state. If I have spent a lot of time in my work on the basic roles of distinct institutions, my understanding of the concurrent need for different kinds of institutions is something I got from Smith.

Another thing that Smith helped me to understand is the importance of choosing a side, in particular the significance of being supportive of the underdogs—those who are neglected by society. Smith's moral engagement was very strong here. In fact, he tended to exaggerate rather charmingly when he wanted to make a point that agitated him. Let me give two examples of his exaggerations in resisting inequity.

One example is from a discussion where Smith is talking about slavery. His take on this subject can be contrasted with the position that his friend David Hume took. In fact, while generally unsympathetic to slavery, Hume showed some weakness in his opposition to it. While full of admiration for the Asians, Hume showed some inclination toward racism in discussing the lives and predicament of African slaves. In sharp contrast, Smith was completely firm in his rejection of racism and in affirming the total unacceptability of slavery. Smith was furious about the slave owners' attribution of a lower form of life to the slaves. In making his point emphatically, Smith said that those taken away from Africa as slaves were not only not inferior to white people, but in important ways, they were far superior human beings compared to the white slave owners. To quote him, Smith [1759 (1767), p. 316] said: “There is not a negro from the coast of Africa who does not, in this respect, possess a degree of magnanimity which the soul of his sordid master is too often scarce capable of conceiving.”

To choose another example of Smith's exaggeration we can see the form that his opposition takes of English racism regarding the Irish—in particular the English sense of superiority over the Irish, which went a long way back, at least to Edmund Spenser's “The Faerie Queene.” A common thesis in London was that the many woes from which the Irish suffered, they tended to bring upon themselves (later on, even the Irish famines of the 1840s were seen by many in London as

“their own fault” rather than as the result of the terrible nature of English rule). There was also the common English ridicule of the Irish inclination to eat a lot of potato. It is clear that Smith’s excursion into the nutritional value of the potato, in *The Wealth of Nations*, reflected his ire about anti-Irish racism. When I first read this passage, I wondered, why on earth is Smith going into a subject on which he couldn’t have been an expert. But a little reflection made clear to me that Smith had a well-defined purpose, in which his disapproval of the English sense of superiority over the Irish figured prominently. His rejection of racism was indirectly present in the presentation of his “decisive proof of [the] nourishing quality” of the potato and of the good judgment of the Irish in choosing to eat it plentifully.

Smith declared that the “strongest men” in London were the porters, chair-carriers and coal heavers. And “the most beautiful women perhaps of the British dominions” were the prostitutes in London (I am not sure how Smith had conducted his empirical enquiry on this). He said that “the greater part of” both these groups came “from the lowest rank of people in Ireland, who were generally fed with this root [potato].” This made Smith satisfied that “no food can afford a more decisive proof of its nourishing quality, or of its being peculiarly suitable to the health of the human constitution.” So, there rests, simultaneously, Smith’s defense of potato as food, his admiration of the unfairly ridiculed Irish, and his scepticism of class superiorities, by noting that the potato-eating, high-performing Irish came from “the lowest rank of people” there. Three birds, Smith was convinced, were got by one rapidly thrown stone.

Smith’s humane and equity-favoring style attracted me almost as much as the power of his economic analysis. When, later on, I went on to investigate the idea of justice, beginning in the 1960s, I had influences of Arrow and of John Rawls, whose classic article “Justice as Fairness” had come out in 1958, but I was also much inspired by Adam Smith. I was very impressed by Smith’s powerful arguments, his imaginative questions (like the ones about the “impartial spectator”), and his ability, which I thought was very rare and important, to see that acknowledging merit in one particular line of reasoning does not require us to reject the pertinence of the opposite reasoning. I would learn more, later on, on this methodological issue when I collaborated with Bernard Williams (we did a book together on utilitarianism). But on top of all that, I was also attracted by Smith’s sympathies and his partisan support for the underdogs of society. He was always ready to stand up for them.

I came to England on a boat—on a big P&O ship called Strathnaver—from Bombay to London in September 1953. In those days, the boat fare was much lower than the airfare, even in the economy class (called tourist class by the airlines in those days). This despite the fact that the ship journey took eighteen days, and the fare included decent accommodation and plenty of nice food, and wine as well (which I did not drink much then, but contemplated the possibility of a change there). The demands of justice, in a rather informal shape, did come into my thoughts over the period of comparative idleness of the boat journey, during which I had the opportunity to think a bit more about the ideas of Smith, Marx, and Arrow. I was going to England to study economics, but none of the leading figures in my immediate academic engagement were pure economists. Indeed, the idea of spending time studying philosophy—ignoring economics—seemed like an attractive thought. I had some books on philosophy with me (including a Russell), and a few on mathematics (I was getting interested in set theory and topology). Happily, I also had some fiction and poetry.

Angus Deaton: That’s quite extraordinary. When I first knew you—I don’t think you knew me, but when I knew you—

Amartya Sen: I knew you. You may have forgotten what our first conversation was, but I can remind you.

Angus Deaton: Maybe over dinner. You know, we Scots still exaggerate a lot, and I'm a little worried about what stories you might have to tell from there.

But I do remember that in Cambridge, in 1969, the early seventies, there was very close contact between economists and philosophers. There were tables which people sat around, and evening seminars, and talks. I know some of the philosophers who were there at that time and remember that, too. There looked like there was going to be this very close integration of welfare economics.

Welfare economics had had its problems. Johannes de Villiers Graaff's (1957) book on *Theoretical Welfare Economics* was 10 years old at that point, and Ian Little's book, *A Critique of Welfare Economics*, had come out in 1950. There was a lot of thriving discussion between economics and philosophy. Welfare economics seemed to have some chance of coming back, but if you look at where we are now, most economic departments—including top departments—have no teaching of welfare economics. That subject has just completely vanished. On the other hand, you've got practical philosophers who are doing economics without knowing any economics, which can be problematic—sometimes even a disaster. Economists have this sort of bastard idea of welfare economics, or of human well-being, which is not thought out at all. Are you disappointed in this? When you started out, it looked like there would be a different future. What happened, and what needs to be done now to get us back in a better place?

Amartya Sen: I think economists tend to ignore philosophy in general, but the idea of welfare in particular. I think the best article on that sad neglect is Tony Atkinson's (2001) "The Strange Disappearance of Welfare Economics."

Angus Deaton: Pleading to bring it back. It's one of the last pieces he wrote, and it bemoans the loss of any sort of philosophical sophistication. Most economists wouldn't know what utilitarianism meant. Even elementary stuff has just vanished. Certainly he was bemoaning that.

Amartya Sen: But this theory that you're talking about—when it was rising, as it were, it had the seeds of its own destruction. Partly because the two most famous books in welfare economics which economists admired most, namely Jan Graaff's and Ian Little's (you have referred to both), were each quite negative. Ian Little took us in the behavioral direction, about [how] you can make interpersonal comparison of utilities through observed behavior. It's never been clear to me, philosophically or commonsense-wise, how you can compare two persons' behavior and that gives you an interpersonal comparison of their well-being. It seems really far away.

Graaff, of course, basically demolished the subject of welfare economics as it existed then. He demolished the subject by showing the fragility of all the assumptions made and the weakness of the conclusions obtained. He was dealing with easy targets. A super-easy target was the so-called compensation tests, which came, oddly enough, from two of the best economists of our time, Nicholas Kaldor and John Hicks. They were trying to make comparisons that would go beyond the so-called the Pareto principle—which acknowledges an improvement only when some people gain and nobody loses. Plausible enough (it seemed), but with relatively rare applicability. The compensation test was meant to take us well beyond this simple case.

What did it say? To summarize rapidly, consider a change from which some people gain and others lose. If the gainers have gained so much that they can compensate the losers and still retain some gain, then it's an improvement according to the compensation test. So you ask the question, Do they actually compensate the losers? No, they don't have to do it—the losers stay losers (all we are checking is whether they could have been compensated). I mean, what kind of an improvement is that? The losers can rightly think this to be a con job.

Can the compensation test be made more persuasive by insisting that the compensation that is possible be actually paid? Then the losers are actually compensated and they are no longer worse

off—but may possibly be better off—than before. The others—the “compensators” involved—have also gained. Can’t we acknowledge this to be an unequivocal improvement, and isn’t this a “hooray” for the compensation test? Yes indeed, but what kind of a victory is this for the compensation test? After compensation, there are people who are better off and no one is worse off, but that surely is just a Pareto improvement, which is already accepted in welfare economics. Why do we need the compensation test at all then, which appears to be either completely unconvincing, or totally redundant?

More particularly, there is no progress here, especially in dealing with inequality or poverty, and we are stuck with just the distribution-indifferent Pareto principle. Note that the Bengal famine might have been a compensation test victory, because quite a lot of people gained a lot in 1943, and they could have compensated the new destitutes. They did not have to do it—and the destitutes mostly died—but was there a social improvement there? How could Kaldor, such a fine economist otherwise, propose this criterion? And how could Hicks, the author of the great book *Value and Capital* (I had a second-hand copy with me on the Strathnaver), support it (Hicks 1939)? The answer probably is that both were trying to do welfare economics without having the real courage to go beyond the Pareto principle—without taking on the real problems of distribution, inequality, and poverty. This could not be done, then or now. Happily, both Kaldor and Hicks wrote many other things from which we learn a lot. And each let go of the compensation test, later on.

Angus Deaton: Before you go on from there—we’re laughing about these compensation tests and how stupid they were, but they’ve totally infected American jurisprudence today.

Amartya Sen: And within economics, international trade theory, too.

Angus Deaton: Yes, and the Supreme Court is applying compensation tests like that on a day-to-day basis.

Amartya Sen: I know. It is saddening.

Angus Deaton: Violating contracts is fine if the surplus is large enough. So this monster is still out there.

Amartya Sen: I know. But never underestimate the power of a bad idea.

Angus Deaton: Especially if you can express it in three seconds.

Amartya Sen: I agree with that. For a little while, persuaded by Jim Heckman, I was on an advisory committee of the American Bar Council, talking about the rule of law. Discussion of the rule of law was really fun, but the compensation test kept coming into the discussion. When I asked them, “Why do you use that?” they said, “No, no, economists have established that compensation tests are very important. We do want the economists to come along with us.”

The confusions are absolutely terrifying.

Angus Deaton: I’m glad you can laugh about it. I’m surprised it doesn’t make you angry because it’s a very serious matter. Bad things are happening to people because of these bad ideas. But also, I mean for you—I’m trying to get you to look sad or something. Look, you’ve had this magnificent career. You’ve done all these wonderful things. You’ve written things that have changed many people’s lives. But this central enterprise of bringing serious philosophy and welfare back into economics has not been a success, in some sense.

Amartya Sen: You are right to see a failure there—it has not been at all a success. Nor have I succeeded in my efforts to bring serious economics into philosophy, the other way around. There’s

a certain amount of economics, rather elementary, that gets used, particularly in law and economics, and also in some other discussions in the law schools, where you hear about a few popular economic ideas but not others. I think there's quite a bit of failure all around.

It began with the failure of welfare economics as a subject in economics. When I told Joan Robinson, shortly after arriving in Cambridge, that I wanted to work on welfare economics, she said, "Do you not know that this is a busted subject?" She referred to Graaff and said they were all trying to do welfare economics, but "the cleverest of them all, Jan Graaff, showed that all this is nonsense." A sad remark. First of all, Graaff didn't in fact show this. Second, he himself never claimed that he had.

Angus Deaton: No. Well, he gave up. He wrote this book and went back to his farm outside Cape Town and grew grapes for the rest of his life.

Amartya Sen: That's the story. He actually spent a year with me in All Souls College as a visiting fellow. This was, I think, in 1984–85. He wrote a number of very interesting—and constructive—papers on welfare economics while at All Souls, none of which would have pleased Joan.

Tim Besley: It reminds me of conversations you and I had—I can remember when we had them: very early in my career, more than 30 years ago—where there is a triumph, I think, of welfare economics that we could approve of, many things that have been done in the name of utilitarianism. Many of which are things we should applaud: the nineteenth-century reformers, very much influenced by Bentham. Yet you, throughout your career, consistently have been suspicious of the philosophical basis of utilitarianism. How can it be that something that apparently has done so much good in the world is philosophically suspect?

Amartya Sen: That is an excellent question. I would argue, Tim, that something being faulty doesn't mean that it's useless. It may be much better than many other alternatives, including the prevailing one. So a change may be very good (taking us away from a bad prevailing situation), and still the post-reform situation could be much further improved. The abolition of slavery, for example, was a brilliant achievement on its own, and yet there were convincing arguments for going well beyond that—even towards a welfare state, for example.

The foundational problems of utilitarianism have been recognized by many utilitarians themselves, like John Stuart Mill. Utility is no doubt important, and utilitarian calculations may suggest much better policies than many other approaches. Consider the vaguely championed conservatism that was so dominant in Britain when Bentham produced excellent arguments for big social changes (like the prison reforms). He also showed the need for a foundational rethink, like liberating the penal system from the legality based on retribution, rather than finding ways and means of making the world a better place (which Bentham rightly advocated). Utilitarianism has the strength that it recognizes the importance of people's pains and pleasures. That's terrific, but one of its weaknesses is that utility, valuable as it is, is not the only thing that matters—for instance, freedom can be important too.

John Stuart Mill did see that, and also saw the need to distinguish between different sources of utility. He continued to claim to be a utilitarian, so there's some versions of utilitarianism—Mill's rather than Bentham's—with which I have less of a problem.

Another limitation of utilitarianism is its profound indifference to inequality—of utilities or welfares—among different people. On inequality, there is a point that John Rawls makes: that utilitarians don't take the "separateness of people" sufficiently seriously. Somehow, one person's terrible misery can be made socially okay through another person's huge utility gain, when you're going only by the utility aggregate (as utilitarianism does).

There are more sensible ways of using the utility calculus. Take, for example, the utility-based welfare economics of James Meade, who does not go only by utility aggregates and takes distribution into account. Even though the question remains why only utility and why not pay attention also to freedom, at least Meade avoids the blindness of utilitarianism to inequality.

So there are better versions of utilitarian welfare economics than Bentham's (Meade's is an important example). But in answer to your initial question, Tim, even a defective theory with which one may disagree in many respects, can, depending on circumstances, do a lot of good by serving as the basis of reform of a much worse system. Bentham's utilitarian justification for reforms is a fine historical example doing a lot of good to the world, but that does not make the philosophical basis of utilitarianism perfectly fine.

Angus Deaton: Can I come back to this period when welfare economics is in disarray, and you're pushing alternative views? It never stopped you from doing applied welfare economics. In 1972 you wrote these guidelines on project evaluation for the United Nations (Sen 1972), which was very practical welfare economics, trying to do good for the world; let's not worry too much about the philosophical underpinnings of it. I also remember you edited a book on economic growth (Sen 1960), I think I learned almost all I know about economic growth—I'm looking at Paul Romer sitting there—from reading the introduction you wrote to that little volume. That growth theory of the time was all tied up with project evaluation. It was sort of, "Okay, I'm really bothered by welfare economics, by utilitarianism, by Rawls and Arrow, but I'm going to go on and do good in the world by adding up incomes," or something of the kind.

Amartya Sen: That is quite right. Both the work on growth economics and the *Guidelines* are attempts at some compromise. The *Guidelines* is a joint work with Stephen Marglin and Partha Dasgupta—in fact, Marglin did the lion's share of the work. I had come to know him and was lucky to have him as a friend, when he came to Cambridge for a year as a student. You came to Cambridge when, Angus?

Angus Deaton: Sixty-nine.

Amartya Sen: This is almost a decade before that. In the lectures I used to give—I think on welfare economics—I found a young American student sitting in the front row, who seemed extremely clever. That was Stephen Marglin. He had very wide interests, but they included his thoughts about working on the assessment of water projects—irrigation, etc. The Americans were kind of obsessed with water projects in those days, and I think it may have been connected with California, which is where Marglin himself came from, via Harvard. There was a water project in Harvard going on. There were Arthur Maass and others working on it. What we did was basically adapting neoclassical economics for use in project evaluation.

I have to confess that I've never liked neoclassical economics very much, but I could do neoclassical economics quite well, without having affection for it. James Meade noticed that, and when he was giving the mainstay "Principles [of Economics]" lectures (connected with the duties of the chair of political economy he held), he asked me to join him in giving the classes based on his Principles lectures. I said, "But James, I'm skeptical of it." He said, "I know very well that you're skeptical of it, but you do it well. You don't have to be in love to offer good classes." I very much enjoyed teaching these classes jointly with James Meade. I guess I've not been entirely consistent in my life.

Angus Deaton: It's also part of what was really a planning literature, in some sense. You were in Calcutta when P.C. Mahalanobis was there, in the very early days of the Indian state, when he was writing the first plans for India. You don't talk about that in your reminiscences of that period.

Amartya Sen: Mahalanobis, who was a brilliant statistician and the founder of the Indian Statistical Institute (the ISI, a great institution), was leading India's Second Five Year Plan, beginning in 1956. I was meant to have been in Cambridge then as a second-year research student, but since I had got some interesting results in my first year (1955–56), which were coming out in the *Quarterly Journal of Economics* and other journals, I did not want to work anymore on my thesis subject, for which I did not have much fondness. So I had gone back to Calcutta in June 1956 with a plan of staying there for a couple of years while my thesis “matured” (that is, became three years old, without any further work, which would allow me to submit it for my Ph.D.). I was teaching in a newly established University (the Jadavpur University) in Calcutta.

I knew Mahalanobis well, and he wanted me to join him at the ISI. Unfortunately, I thought his Five Year Plan was a big mistake. Despite my admiration for him (I really did admire him greatly), I had to excuse myself from working with him. I made some minor criticisms of the Mahalanobis approach (nothing terribly serious), but could not tell him how fundamentally shocked I was to see his complete neglect of primary health care and primary education in his Five Year Plan.

In your Nobel presentations, Angus, you have been very generous to Mahalanobis, and he deserves it. He did things that hadn't happened in India before. ISI was a great teaching and research institution. I am sure you know brilliant statisticians who were trained mainly at the ISI. One of them, T.N. Srinivasan, died last week. Unfortunately, even T.N. did not give him as much credit for what Mahalanobis had achieved. But you do it very well, Angus.

I knew Mahalanobis from when I was a child, when I was three or four. He was a family friend. There are lots of pictures of me smiling very happily on Mahalanobis's shoulders, being carried around. I don't remember any conversation with him. Later on, around 1956, when he was reconciled to my not having a serious interest in his Five Year Plan, we talked a lot about another of his favorite themes: the difference between subjective and objective probability. The subject did interest me a lot, and Mahalanobis was cogent and illuminating on the subject. My own understanding of the subject had been much influenced by John Maynard Keynes's (1921) *Treatise on Probability*. In many ways, arguably, it was the best book that Keynes ever wrote, showing us how hard it is to shake off the subjective elements in the understanding and use of probability. Mahalanobis's position was in many ways rather similar: You can't explain probability without some intervention of the mind. All that was fine with me, but doing planning without paying attention to elementary education and basic health care was a bridge too far.

Angus Deaton: Were you worried about that at the time?

Amartya Sen: Yes, indeed. I also did write something on that. Rather Smithian in fact. Adam Smith had emphasized again and again that the most important expansions of the economy and the material basis of the society have to come from increases in human skill and productivity. And education and health care—in addition to division of labor—are clearly central to this, particularly for a country like India, with its huge illiteracy and bad health conditions.

Angus Deaton: You've retained your Indian citizenship all your life. You've never taken on any other citizenship, as some of us have. You've written that this has helped you to preserve, in some ways, your standing to write critically about Indian government policies and to think—from inside—about Indian public affairs. You've written some wonderful books with my coauthor Jean Drèze, the last of which is *An Uncertain Glory: India and Its Contradictions*, published in 2013, a new edition of which has just come out.

Amartya Sen: It's very easy to write excellent books jointly with Jean Drèze.

Angus Deaton: I know. I mean, he writes the books, and you get the credit. It's terrific.

Amartya Sen: I have only once seen a streak of self-concern—of course jokingly—in him. I used to say in public meetings that we have a very good division of labor: Jean does 99% of the work and I get 99% of the credit. On one occasion, by mistake, I said that Jean does 90% of the work and I get 90% of the credit. Jean raised his eyebrows, looked at me, and asked, “What happened to the other 9%?”

DISCLOSURE STATEMENT

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LITERATURE CITED

- Arrow KJ. 1951. *Social Choice and Individual Values*. New York: Wiley
- Atkinson AB. 2001. The strange disappearance of welfare economics. *Kyklos* 154:193–206
- Drèze J, Sen A. 2013. *An Uncertain Glory: India and Its Contradictions*. London: Penguin
- Forster EM. 1924. *A Passage to India*. London: Bloomsbury
- Galbraith JK. 1952. *American Capitalism*. New York: Houghton Mifflin
- Graaff JdV. 1957. *Theoretical Welfare Economics*. Cambridge, UK: Cambridge Univ. Press
- Hicks JR. 1939. *Value and Capital*. Oxford, UK: Oxford Univ. Press
- Keynes JM. 1921. *A Treatise on Probability*. London: Macmillan
- Marx K. 1875. *Critique of the Gotha Program*. *Neue Zeit* 1(18):1890–91 (in German)
- Pigou AC. 1920 (2002). *The Economics of Welfare*. New Brunswick, NJ: Transaction Publ.
- Rawls J. 1958. Justice as fairness. *Philos. Rev.* 67:164–94
- Robinson J. 1956. *The Accumulation of Capital*. London: Palgrave Macmillan
- Sen A. 1970. *Collective Choice and Social Welfare*. San Francisco, CA: Holden-Day
- Sen A. 1972. *Guidelines for Project Evaluation*. New York: United Nations
- Sen A. 2009a. *The Idea of Justice*. Cambridge, MA: Harvard Univ. Press
- Sen A. 2009b. Introduction. In *The Theory of Moral Sentiments*, ed. RP Hanley, pp. i–xxii. New York: Penguin
- Sen A. 2017. *Collective Choice and Social Welfare: An Expanded Edition*. London: Penguin
- Sen A, ed. 1960. *Growth Economics*. Harmondsworth, UK: Penguin
- Smith A. 1759 (1767). *The Theory of Moral Sentiments*. London: Andrew Millar
- Smith A. 1776 (1910). *The Wealth of Nations*. London: J.M. Dent & Sons
- Stephens I. 1966. *Monsoon Morning*. London: Ernest Benn
- Wittgenstein L. 1922. *Tractatus Logico-Philosophicus*, transl. D Pears, B McGuinness. New York: Routledge
- Wittgenstein L. 1953. *Philosophical Investigations*, transl. GE Anscombe. New York: Macmillan



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