

# Keynes and his Cambridge pupils and colleagues\*

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Thank you very much for coming and for showing such stamina. We've had three fascinating, but long and concentrated days<sup>1</sup>, so it's really good of you to come here. But, as I said last night, I'm the stick and dinner at 6:30 is the carrot. I'd like, especially, to thank Masao Fukuoka, Joan's and my old friend and host from Keio University for coming to the lecture. I much appreciate it. It's lovely to see him again. He and Denzo Kamiya were so kind and helpful to me when we lived in Keio and they've been such good friends. It's amazing. You can go many years without seeing friends, but as soon as you see them, it's as though time has never passed. Of course, that would be understandable to Masao because he's a general equilibrium theorist, but I think I can make it as a Veblenesque remark.

I'm just going to make some observations and tell some stories about Keynes and his Cambridge colleagues. Now, obviously, I was born well before Keynes died. I was born in 1931, at the height of the Depression, with a twin brother. And, as I tell everyone, my father came in with a bucket and said to my mother, "Which one do you want to keep?" It was the only time my mother, who had very set views, couldn't make up her mind. So I am, in a sense, a product of the famous ass of antiquity, except that as we were regarded as equally delectable bundles of hay, we were brought up by our mother and father as a result.

I want to start off with two anecdotes, which are rather naughty, but I think they're worth telling. Once, I was in the coffee room named after Richard Stone in the Austin Robinson Building of the Cambridge Faculty. Joan Robinson was talking to John Kenneth Galbraith. As I'm sure you all remember, John Kenneth Galbraith was 6-foot-8-inches high, a very tall man. Joan was not a short woman; she was medium height for an Englishwoman of her class. Nevertheless, she was looking up to Ken and one said to the other – I can never remember which way it went, but it doesn't matter – one said to the other, "Do you ever think there will be another generation like ours?" And the other one said, (remember he's 6-foot-8-inches), "No, they're all pygmies now!" And now – senior moment – I've forgotten what the other story was that I was going to tell you, but perhaps it will come back later.

I went with Joan – Joan Harcourt, I must be specific here – to Cambridge in 1955 to do a Ph.D, initially with Nicky Kaldor as my supervisor. That, I have to say, for reasons I won't go into, was an

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\* This talk was given as the Special Lecture to celebrate the 75th anniversary of the publication of *The General Theory* at Meiji University on September 16, 2011. I have tidied up the transcript of what I said but what remains is basically what I said.

<sup>1</sup> This lecture was the third one of mine at International Conference on Post Keynesian Economics, held at Meiji University, September 14-16, 2011.

utter disaster. But fortunately, he went on leave at the end of the first term, and, I went to a man called Ronald Henderson, a very fine man who was then the Treasurer of Corpus Christie College and a lecturer in economics. At that time, in the 1950s, Cambridge was split into two camps; on the one hand there were the Keynesians, led by Kahn and Joan Robinson, in particular, but with lots of other people associated with them. Austin Robinson, Joan's husband, was respected by all sides. He was a man of strong character, but he also was a natural peacemaker and conciliator. On the other side was Sir Dennis Robertson and the people around him, including Ronald Henderson. Ronald had been supervised by Joan Robinson and he did not like her at all. He did not like her for social reasons. He thought she was an upper-class snob, whereas he was an upper-class Scotsman and, therefore, by definition not a snob. He was supervised with a man called Victor Morgan. I don't know whether any of you remember Victor Morgan. He became a professor at Swansea. He was an albino, he was virtually blind, and he was a very good conservative scholar of money and banking. I don't think either of them liked being supervised by Joan even though lots of people loved being supervised by Joan, I ought to say. For example, my old friend the late John Vaizey, Lord Vaizey, adored Joan and thought her ideas were absolutely spot-on, but after every supervision with her, he would cry himself to sleep because she was so strict and severe and had torn into him.

When we talk about Keynes's pupils and colleagues in particular, I am going to mention the following people: Richard Kahn, of course, and Joan, but also Austin Robinson, or E.A.G. Robinson as some of you may know him, who Keynes thought was easily one, if not his best pupil, and with whom he collaborated for many years, as I mentioned the other day. And then there was James Meade, who came from Oxford to Cambridge at the end of the 1920s to spend a year there before he started teaching Economics at Hertford College, Oxford. When Roy Harrod came to learn Economics at Cambridge in the early part of the 1920s, before he taught at Christ Church, he only came for a term. So at the beginning of the 1920s, you only needed a term's training in Economics at Cambridge as an Oxford person, before you were fit to teach at Oxford. But by the end of the 1920s, the beginning of the 1930s, you needed a whole year before you could be let loose on Oxford students. James is associated with the famous multiplier article by Richard Kahn, Kahn (1931), in which they refer to "Mr. Meade's Relation". This does not mean his auntie. It meant James formulated the multiplier by the leakage into saving instead of the induced spending into consumption. Towards the end of his life James published a very nice article in the *Economic Journal*, Meade (1993), describing the genesis of "Mr. Meade's Relation" and the Kahn-Keynesian multiplier and how they saw it in those days. I think I mentioned, in one of my earlier lectures, my New Zealand friend, Paul Dalziel. He and I wrote an article on "Mr. Meade's Relation" and international capital movements as a critique of Feldstein and Horioka (1980), a very influential article on how saving is supposed to determine investment in the world as a whole.

Next is Piero Sraffa, a fascinating man in his own right. Sraffa was the son of an important Italian professor of commercial law and his mother came from a rich industrial family. Both his mother and father were Jewish. Piero became a friend of Keynes in the early 1920s when he was sent, after he graduated in Italy, to the LSE to study Economics. He met Keynes through a mutual friend. Piero was an expert on banking and monetary theory. He wrote a famous article in the *Economic Journal*, Sraffa (1922), criticizing the behaviour of the Italian banks. That really annoyed Mussolini. If Sraffa hadn't been so well connected, he would have been put in jail. As it was, Mussolini put the hard word on Sraffa's father to get him to apologize for demeaning the Italian banking system. Piero told Mussolini that he wouldn't retract a thing, as everything he said was based on facts observed in the real world and what he said was correct. He wasn't going to budge on that at all, which, needless to say, did not please Mussolini. Sraffa, by that time, was a very good friend of Antonio Gramsci. When Gramsci was put in jail (Gramsci was the Secretary of the Italian Communist Party), things became hot for Piero. He

published a brilliant article in 1925 in Italian, Sraffa (1925), which Edgeworth, who could and did read every language that was ever invented and read every article that was ever published as well, told Keynes, who was the editor of the *Economic Journal*, about it. They asked Sraffa to write an article in English about what he'd said in the Italian one – this is the origin of his famous 1926 paper.

On the basis of these articles, when it was getting politically very difficult for Piero to stay in Italy, Keynes arranged for the Faculty at Cambridge to create a lectureship and Sraffa was appointed to it. He lectured for three or four years, giving these brilliant lectures which are being edited by Heinz Kurz for publication by Cambridge University Press. (I have read them through the Sraffa archives.) Joan Robinson refers to Sraffa being very critical of Marshall and the Marshallian and Pigovian tradition in Cambridge. Amongst other things, though, relative to what he really thought, he rather pulled his punches in the lectures. Sraffa hated lecturing and became more and more upset about this. Moreover, he always worked at night, so he lectured from 12 to 1, which in those days was the latest part of the day that you could lecture. No one ever thought of lecturing in the afternoon to the young gentlemen, and they were mainly young gentlemen, who would be out on the sporting fields. You know how mad on sport Brits are, and Australians also, I might say, especially me. James Meade told me that Piero would stagger in at about 12:20, brushing the sleep out of his eyes. You could see his pajamas peeping out from under his trousers as he lectured. He pleaded with Keynes to let him resign his lectureship; so to keep him in Cambridge he was made the editor of the Ricardo Volumes, Sraffa with Dobb (1951-73), the mentor to the research students and the Librarian of the Alfred Marshall Library of Economics.

I now remember the other story I was going to tell. Joan Robinson told me once that, “while Maynard was alive nobody ever argued who was the greatest of them all.” (You know, like in *Snow White*, where the wicked queen asks, “Mirror, mirror on the wall, who is the fairest of them all?”) Joan said there was no contest, that Maynard Keynes just dominated everybody, they looked up to him, not in a subservient way, they argued vigorously with him, but they knew he was the most all around, brightest and most impressive of them all, that it was a privilege to be associated with him. Richard Kahn, who was his favourite pupil and who was absolutely devoted to him, said in later life he was proud to be called, to be thought of, as a disciple of Keynes. After Keynes died in 1946, Richard worked on what he thought Keynes would have been interested in; buffer stock schemes to help the international system stabilize the prices of primary products and avoid the terrible troubles of the 1930s; a wages policy because, if full employment was to be sustained, you have to do something about the tendency for money wages to rise faster than prices; extending liquidity preference theory to the stock market (his famous article in the *Manchester School*, Kahn (1954)); and his evidence before the Radcliffe Committee on Monetary Matters and Monetary Institutions in the UK, which is much inspired by Kahn's evidence – it is reprinted in Kahn (1971). (Kaldor also gave evidence too.) Later in his life, Kahn reread *The General Theory* (1936) and *A Treatise on Money* (1930) for the first time after they were published in order to give the Keynes Lecture of the British Academy, Kahn (1975) and the Mattioli Lectures on the making of *The General Theory*, Kahn (1984). I persuaded Mark Perlman, who was then the editor of the *Journal of Economic Literature*, to publish a revised version of Richard's Keynes Lecture to the British Academy, which again was about the connection between *A Tract on Monetary Reform*, *A Treatise on Money*, and *The General Theory*, and the development of Keynes's ideas. Kahn was very modest about his own contributions, far too modest as they were very great, but he saw himself as continuing what Keynes would have done. Keynes always said that when he became 70 he would do economic history. Kahn got well past 70, but while he did history of economic theory, he didn't do economic history as such, though, of course, he was well aware of the importance of history.

We are celebrating 75 years on from *The General Theory*, so I must put *The General Theory* at the front of our thoughts. At the same time, we need to remember that Keynes was a multi-dimensional

person, very much interested in policy, in persuading people and doing journalism and meeting politicians, central bankers, treasury officials, and so on, and that he first made his name from his courageous book, *The Economic Consequences of the Peace*, Keynes (1919), which was an attack on the reparations aspects of the Treaty of Versailles. He was, therefore, a very involved citizen.

There were two great philosophical influences on Keynes – Edmund Burke, the great conservative thinker from the 18<sup>th</sup> century, and G.E. Moore, the philosopher who, at the turn of the last century, published *Principia Ethica*, Moore (1903), in which he asked, “What is the nature of the good and how can you be good?” He ended up saying that being good was hard to define, but it embraced love of beautiful objects and that honest and transparent friendships were the greatest goods that human beings could aspire to. A lot of his followers misunderstood what was meant by the love of beautiful objects and sometimes made it their friends’ wives or husbands, but that’s what you’d expect from Bloomsbury. Nell Annan coined the lovely aphorism: “The Bloomsbury circle lived in squares and loved in triangles”. That is a witty, upper-class English joke and I’ll take five minutes off for you to laugh at it. Thank you very much.

One of the conundrums that G.E. Moore posed was: “Is it possible to be good, to be a good person, and to do good, that is to take part in actual life, political, industrial, social life?” Moore was doubtful whether it was, but I have always argued that if you looked at the sum total of Keynes’s life, what he achieved and what he did, and at his behaviour, the answer is a resounding “yes”. Certainly, in his case, it was possible both to be good and do good. I don’t mean that Keynes was a goody-goody because he certainly wasn’t. As Sean Turnell and I have written in our review article, Harcourt and Turnell (2005), of Skidelsky’s three volumes, Skidelsky (1982, 1993, 2000), Keynes was more Jekyll and more Hyde than ordinary people. When he was bad, he was very, very bad and when he was good, he was very, very good. One of the illustrations of this is the studies that people have made about, on the face of it, Keynes’s rather rabid anti-Semitism. It’s even recorded that Keynes said: “I define anti-Semitism as disliking Jews more than you ought to,” a good high table witticism. I’m not sure that it has ever been established that Keynes actually said it, but he certainly could have. His behaviour, as opposed to what he said, which was just the thoughtless anti-Semitism of his class and time in England, was completely different. First, many of his greatest friends were Jews: Sraffa, who was a non-practicing Jew; Richard Kahn, who was a bi-word for orthodoxy in the 1920s and 1930s due to his upbringing; Leonard Woolf, the husband of Virginia Woolf, who was a great friend of his from Cambridge days in the Bloomsbury Circle; and, of course, the man he met at Versailles, Melchior, about whom he wrote a most moving and affectionate memoir, which was published, after Keynes died, as one of two memoirs at the end of *Essays in Biography*, Keynes (1933). Keynes and Hayek were among the first to help get Austrian and German Jews out of Austria and Germany when Nazism arose, and to look after them. When they were locked up soon after the start of the War, for example, Sraffa was sent to the Isle of Man as a dangerous enemy alien, Keynes pulled out all stops to get him out. And not only Sraffa. He got many other people out of the Isle of Man and told Winston Churchill not to be so stupid. (Churchill had panicked in 1940 and said, “Collar the lot!” So all these poor people who had escaped from Nazism were regarded as potential spies and put on the Isle of Man.)

Richard Kahn, his favourite pupil, was taught by Keynes in the late 1920s who then was instrumental in him writing a Dissertation to get a Fellowship at King’s (he was elected in 1930). It was on the economics of the short period and, as I said, I think last night or the night before, Kahn’s interest in making the short period a study worthy of study in its own right reinforced Keynes’ own feeling which may be seen in *A Tract on Monetary Reform* and after. However, in *A Treatise of Money* (1930) he was still locked in the Marshallian view of a long-period equilibrium position and the transitions between them and the convergence of short-period situations on a long-period situation. Also, as I said

the other night, Kahn was always very skeptical of the Quantity Theory of Money. So, Kahn was the most important person criticizing Keynes when he wrote *The General Theory*. Keynes wrote to Joan Robinson on March 29, 1934: "I am going through a stiff week's supervision from R.F.K. ... there never was anyone in the history of the world to whom it was so helpful to submit one's stuff", *C.W.*, vol XIII, 1973, 422. (Usually, Kahn was referred to as Alexander.)

As I mentioned, Keynes and Austin were also very close; when they were together, they were very much applied economists. Austin, though, was asked to write a review of *The General Theory* for the *Economist* magazine. (It was the only review ever published in the *Economist* in those days which was signed. Even then, they didn't put Austin Robinson, they just put initials, E.A.G.R.) Austin was very cross with the *Economist* because, without his permission, they changed the title, narrowing what he thought was the scope of *The General Theory*, and changed some of the text. Austin complained to Keynes, expecting to get some sympathy. Do you know what Keynes said to him? "It serves you right for publishing in the yellow press." With some people for friends ... Austin collaborated with Keynes on the *Economic Journal* and during the war. Austin always said his greatest contribution to the war effort was to get James Meade and Richard Stone, both of whom had been associated with Keynes, to work out the National Accounts of the United Kingdom, see Meade and Stone (1941). Stone had been a pupil of Keynes when he was an undergraduate, and James had come to know Keynes when he was in Cambridge in 1929 and 1930 and was a member of the famous Circus. In fact, it was Margaret Meade James' wife, who described the nature of the Circus. It was like a Greek play in which the principal character was never seen. Kahn was the messenger from the gods who took the findings of the Circus to tell Keynes what their criticisms were. Keynes would tell him why they were wrong or why he agreed with them. Kahn would return and give them the messages from the god, a very vivid scene, I think, but quite in keeping with Margaret Meade, as I remember her. (Margaret lived to be within two months of being 100; it was a great sadness for her family who were planning a great celebration for her birthday and she didn't make it. As I think I have told you, this is not uncommon in Cambridge. In order for the *Cambridge Journal of Economics* to celebrate my 80<sup>th</sup> birthday last June, it had to be third-time lucky because they tried to do it for Joan's 80<sup>th</sup> birthday and they tried to do it for Nicky's, but neither of them lived to see the day.)

I mentioned Austin, saying that his greatest contribution to the war effort was to get James Meade and Richard Stone to work out the national accounts of the United Kingdom, (see Meade and Stone (1941)), because it was felt that wartime finances could not be properly planned without having a set of national accounts to draw on to help to see where the various resources were, for budgetary policy, manpower planning and the war effort generally. There are vivid stories of Richard Stone and James Meade doing these calculations in a tiny little room in the Treasury. There's an especially lovely story of Richard Stone, who was a real dandy, who always wore wonderful suits, bow ties, Homburg hats and so on. Once he was coming in to see James to do their work and he was caught in an air raid. As he came in, still very dignified and dandified, he took off his Homburg hat, which was covered with dust. He brushed it off and, as he hung it on a peg, said: "Really James, they've gone too far this time!" I was very fond of Richard who was a most civilized, kind, considerate and delightful person. As I said, he was very much the dandy, so I have always wanted to say (I hope there are some P.G. Wodehouse fans here) that I thought of Richard Stone as Bertie Worster in appearance, but with Jeeves's brains. I fear this is lost on you but never mind, Avi Cohen will explain it to you afterwards.

What about Joan Robinson and Keynes? Through her marriage to Austin and then, when they came back from India in the late 1920s to work in Cambridge, and through their mutual friendship with Kahn, Keynes came more and more to know Joan, value her opinions and to discuss his work with her. Before he wrote *The General Theory*, Austin, Joan, Richard and Piero went to his lectures, to spy on him as he

wrote to his wife, Lydia. Prior to the publication of *The General Theory*, Joan wrote two progress reports, as it were – one an article in *Economica*, which was actually written in 1931, but for some reason not published until 1933; and another in the *Review of Economic Studies*, Joan Robinson (1933a, 1933b). They both give you good snapshot pictures of how far Keynes had got. Joan made a most perceptive remark in one of those papers when she wrote that though this is supposed to be about the price level, almost without realizing it, Mr. Keynes has provided us—notice the choice of words – with a *long-period* theory of unemployment: long-period theory. So he was still halfway between the long-period setting of Marshallian-Pigovian analysis and the new setting in the short period of the revolutionary constructions in *The General Theory*. Joan attempted to try to reconcile Hayek with Keynes, to explain why Hayek and Keynes were falling out. She explained, for example, the elements of what became Liquidity Preference Theory, that at the margin there was an uneasy truce between bulls and bears, and also the idea that markets do not clear unless there are very well-informed market makers, which became an important part of both Keynes's work and Kaldor's work. Kaldor's greatest theoretical paper on speculation and economic stability, Kaldor (1939), exploits this idea.

After *The General Theory* was published, Joan wrote two important books, Joan Robinson (1937a, 1937b). One (1937a) is still one of the best introductions to *The General Theory*. It was done despite Keynes's objection. She was rather obtuse because he really was telling her in a coded message, “get off of my land,” when she outlined to him her idea of writing this “told to the children” book, not for the first class students, but for the 2-iis or the 2-is, the not-so-good, who needed to get some idea about the new ideas. Then there is her very adult *Essays in the Theory of Employment*, which is noted for the first attempt by Joan to apply the propositions of *The General Theory* in the long period, and to extend his analysis in a systematic way into the making of the foreign exchanges. She also introduced the idea of disguised unemployment and the Harris-Todaro Model of internal migration. All these are in her 1937 essays.

During the 1930s and as the war approached, Joan, along with Meade and Austin, took active roles in the Labour Party, which was trying to recover from the disaster of Ramsay MacDonald leaving them, forming a national government and imposing strict, what we would now call, neo-liberal policies. They were trying to introduce Keynesian ideas into the policies of the Labour Party. In Prue's and my book on Joan, Harcourt and Kerr (2009), Prue has a wonderful chapter on the talks Joan gave on the BBC, the papers that she wrote and the activities that she undertook in the Labour Party from a left-Keynesian point of view. She was extremely active, propagating Keynes's message as a left-Keynesian.

When the war came, Keynes's pupils as well as Keynes himself became a very important part of the war effort and planning the post-war period. Richard Kahn first worked at the Board of Trade, then in the Ministry of Production and Supply, and finally again at the Board of Trade. He made a great impression as a civil servant. Austin Robinson was in manpower planning and kept Keynes informed about what he was doing. James Meade was in the Economic Section of the Cabinet Offices. He became a most important figure. The Meades had a hair-raising escape from Europe after war was declared. He was in Geneva working for the League of Nations. Margaret and James and, I think, two or three of their children had this hair-raising trip in a car through occupied Europe in order to get back to the UK. It's described in Susan Howson's superb obituary of James Meade in the *Economic Journal*, Howson (2000).

I now mention two of Keynes's best pupils who he taught while he was writing *The General Theory*: Brian Reddaway, who subsequently was Director of the Department of Applied Economics and the Professor of Political Economy at Cambridge; the other was David Champernowne, who held Chairs at both Oxford and Cambridge. Reddaway and Champernowne wrote brilliant reviews of *The General Theory*. Reddaway wrote his for the *Economic Record*, Reddaway (1930), just after he arrived to spend

two or three years in Australia, in fact, at my old college Queen's in Melbourne and working in the Economics Department, University of Melbourne. The review is reprinted in Lekachman's book, *The General Theory After Three Decades* (1967).

I must tell you an interesting story about Reddaway. He was extremely intelligent and liked to work things out from first principles. He felt that, as he'd read Marshall and *The General Theory*, that was about all the economics you need to read; from then on, you could think out things for yourself. So he rarely knew what was going on in the literature, or who anybody was. 50 years after he published his review, Warren Young, who wrote a wonderful book on the history of IS-LM, Young (1987), and I were talking to Reddaway in the faculty coffee room. Warren said, "Do you realize, Brian, that this footnote in your review, where there were a number of equations, is really IS and LM?", which indeed it was. Reddaway said Keynes uses mutual determination, so let's put the equations down (Keynes had used something like these equations in his lectures.) Reddaway said to Warren: "You know, Warren, I've never thought of it like that!"

Champernowne, who was also then a very young man, published a long article in the *Review of Economic Studies*, Champernowne (1936), in which he distinguished between the short-term and the long-term aspects of Keynes's new theory and how the classical system, on the one hand, and Keynes's new system, on the other, grooved into one another. Again, the conceptual base of Champernowne's analysis was IS and LM. So it's very puzzling why Richard Kahn and Joan Robinson were extremely critical of Hicks's version of Keynes in "Mr Keynes and the Classics", Hicks (1937), and of Keynes being taught like that. At the Econometric Society Meeting where Hicks gave his paper, James Meade and Roy Harrod also gave papers, Meade (1937), Harrod (1937). Moreover, Hicks did not write his paper until he had read their papers because he said he wanted his notation to be consistent with theirs; Harrod's "Mr Keynes and traditional theory" and James's "A simplified model of Mr Keynes's system" are done in IS and LM. Hicks got the publicity because he used a diagram. Now, there's a lot to be said for using diagrams, but in fact, they'd all written the same paper, as it were, and they'd all found IS and LM in *The General Theory*. Yet, we have this paradox that Joan and Kahn would never allow *The General Theory* to be interpreted in IS and LM terms and they thought that doing so had done untold harm to the propagation of Keynes's message.

My take on this is the following: You can find IS and LM on page 173 of *The General Theory*, where Keynes writes that we have now introduced money into our system and we can have our first look at how it affects the system. He then runs through a couple of paragraphs, which is IS-LM with all the ceteris-paribus assumptions put in, so that it brings out immediately both its positive side and its limitations because if the *cet. par.*, the other-things-being-equal, qualifications don't hold, IS-LM breaks down as an explanation. Don Moggridge has explained this extremely clearly in the appendix to his Fontana Modern Masters book on Keynes, Moggridge (1976), on the strength and limitations of IS-LM, and I think his is the most balanced view. I don't know whether Joan or Richard ever read Don's book. They were his friends and teachers. I do think Don has it right. I think I have it right as well. IS-LM is a useful pedagogical start to the teaching of Keynes, provided you stress the limitations.

This takes us to one of the most important things, which is necessary for us to understand the post-war contributions of Keynes's pupils. In *The General Theory* and other places, Keynes distinguishes between the three models he uses. It was Jan Kregel who first brought this out in a wonderful paper in 1976, Kregel (1976). The first way Keynes sets up his model of a monetary production economy is to say that we have a state of long-term expectation that is relevant for investment expenditure and that we have a state of short-term expectation that is relevant for the determination of output and employment, and if you allow price-making, as opposed to price-taking (also price-making, but, of course, Keynes, on the whole, did not). He used Marshallian marginal cost

pricing in all industries most of the time. Then the simplest way of thinking about the world, not as a realistic description, but to get to the essence of it, to prove existence, if you like, is to say that short-term expectations are independent of long-term expectations and that short-term expectations are always realized, so the economy is always at the point of short-period effective demand, where planned saving and planned investment are equal to one another as are aggregate demand and aggregate supply. This is the most abstract model. Next, you drop the assumption that short-term expectations are always realized and tell the story how either price signals or unintended inventory or stock changes guide you to the stable point of effective demand, as long as investment remains given and unaffected, which in this model it is because short-term expectations and their non-realization do not affect long-term expectations. Finally, we have the most realistic model in Keynes's book, the theory of shifting equilibrium where you neither achieve short-term expectations immediately nor do you allow short-term expectations and long-term expectations to be independent of one another. You have, in effect, a shifting equilibrium model.

That model is the conceptual basis on which the post-Keynesian theories of growth and distribution were erected in the post-war period, principally by Joan Robinson in *The Accumulation of Capital* (1956) and *Essays in the Theory of Economic Growth* (1962), but it also fed into Kaldor's various models of growth which were published in the 1950s and 1960s. When Bob Solow gave his Marshall Lectures in 1963, he said: "I am going to talk about a mythical creature called Joan [who was actually in the audience], and a mythical creature called Nicky [who was away in Australia at the time]." He had this picture of Nicky going around the world in a Sputnik, dropping out models, each the latest Kaldor model. Before one reached the earth, another one was on the way, so prolific was he at the time. This particular line of development reached its zenith in Kaldor-Mirrlees in 1962.

I turn now to Nicky Kaldor. Kaldor was a graduate of and then a Lecturer at the LSE, as we learned today. The LSE was evacuated to Cambridge during the war and so Kaldor came to Cambridge. As an alien, he wasn't able to help in the war effort, but he did get to know Keynes and the Cambridge economists. The Kaldor children and the Robinson children were much the same age, so they too became friends. After the war, Kaldor helped John Kenneth Galbraith in his study of the effects of saturation bombing on Germany. By that time, Kaldor, having started off slowly (having been influenced by Robbins and Hayek), had become a convinced and original Keynesian, so he was attracted to Cambridge. After the war, he was made a Fellow of King's and made a Lecturer in the faculty. He was a close friend of Joan and Richard and Piero Sraffa's, especially Piero Sraffa, whom everybody loved. They used to go for long walks and talk about economics. They also had something called the secret seminar, which wasn't a secret seminar at all. It was called that so that people who weren't invited to it would know it existed and know that they were outsiders. They worked as a team in creating post-Keynesian theory. Nicky was a spoilt only son of Hungarian Jewish parents. He had sisters, but he was the only son; he was utterly adored and so I've never known how he could ever have been a neoclassical economist because he never experienced decision-making under constraints. He did not know what a constraint was; he was the most uninhibited person I've ever met. He always said what he thought. He always did what he wanted to do. After he died, someone said that while he could irritate people, everyone ended up liking him or loving him. At his funeral, his daughters (he had four daughters) and his long-suffering wife, Clarissa Goldschmidt, pooled their knowledge. They said, "There are six things we're going to tell you about our husband and father." They went through them, all very flattering and true to life, and then said: "And now we get to his naughtiness: this is not the time to talk about his naughtiness, so we will pass on." It is no wonder that he became a heterodox post-Keynesian economist who wrote a book towards the end of his life called *Economics Without Equilibrium*, Kaldor (1985), because he could not accept the idea of constraints, even though he made



important contributions to mainstream economics in the 1930s while he was at the LSE.

He, Joan and Kahn worked on growth and distribution theory and, unfortunately, Nicky and Joan fell out over this in the 1950s. Nicky thought that Joan was pinching his ideas, Joan tried to calm him down but Richard, a rather naughty man in some ways, stirred them up, just when there was a terrible faction fight between the Robertsonians and the Keynesians in Cambridge. Stanley Denison, a very right wing man, pushed Robertson to take far more offense than Robertson would have done if left to himself because Robertson was naturally, kind and considerate and a brilliant and fascinating man. He and Keynes had been the most intimate of friends. He had been Keynes's pupil in the 1920s, each helped one another in their work. They would say, "Well I don't know whether I did that or Dennis did. We've just been working together." When they fell out intellectually, it was very, very sad for Keynes. Keynes always did everything he could, even though he disagreed intellectually on certain important issues with Dennis, to keep their friendship going. When Pigou was coming up to retirement from the Chair of Political Economy, as I think I mentioned the other night, Joan and Richard wanted Keynes to put himself forward. Keynes said, "No. We've got to get Dennis back from London." [He'd gone to the LSE to a Chair in the 1930s.] "He's unhappy in London. We must get him back to Cambridge." If you look up "News and Notes", in one of the 1944 issues of the *Economic Journal*, you will see, first of all, the notice of Mary Marshall's death and, secondly, the appointment of Dennis Robertson to the Chair of Political Economy in Cambridge to replace Pigou. I think this was a most magnanimous gesture by Keynes. It was terrible to see the subsequent fights.

Dennis's last 20 years were sad. I went to his lectures in 1955 and I must say that I couldn't understand a word he was saying, although I gathered he wasn't too keen on Keynes's ideas. It wasn't until I made a thorough study of his three volumes of what he said in his lecture notes, Robertson (1957, 1958, 1959), that I could see what was driving him. There is a wonderful biography of him written by Gordon Fletcher, Fletcher (2000), a fine Keynes scholar at Liverpool, which explains the psychological background to Dennis's approach to economics, the reasons for his falling out with Keynes, and so on, fascinating stuff in its own right.

I've mentioned Reddaway and Champernowne. Reddaway used a lot of Keynesian-Marshallian ideas in his applied work and also in making important contributions to development theory in the post-war period. Champernowne, after a spell in Oxford, came back to Cambridge. When Joan Robinson published her famous paper, "The production function and the theory of capital", Joan Robinson (1953-54), he published a long note on it, nearly as long as the article itself, in which he rules out by assumption, having recognized their existence, capital-reversing and reswitching, Champernowne (1953-54). Kahn and Joan brought Champernowne back from Oxford because they wanted to use both his economic intuition and his very heavy mathematical artillery. He was a brilliant mathematician, extraordinarily bright and quite idiosyncratic. In many ways, I don't think he ever left the sixth form, so he had great enthusiasms. There's a Roman road in Cambridge ten miles long, and every year there is the Roman Road Race. In his fiftieth year, Champernowne said to Vincent Massaro and myself: "I'd really like to run the Roman Road. So we'll get Mrs. Champernowne [Mika]... we'll get Mika to run us out to the beginning of the Roman Road and we'll run along it while she takes the car round and picks us up at the end." What we didn't know was the Roman Road was full of potholes. We went at night, a cloudy moonless night actually, so here's this middle-aged person in white shorts and these two younger persons in their 1930s, running along the Roman Road. How would we have explained to a policeman if Champernowne had put his foot in a pothole and broken his leg so that he saw these two people in running togs carrying a third, rather large person in running togs along the Roman Road at night in Cambridge?

That was typical of the idiosyncrasies of Champernowne to want to do something and then go out

and do it. He was extraordinarily clever, not necessarily in perceived wisdom. In my view, the five years that Champernowne and Reddaway spent as editors of the *Economic Journal* were five of its very best years because they were no respecters of persons. Reddaway rarely knew who anybody was. We didn't have blind refereeing in those days. Champernowne was idiosyncratic in what he would take. Their contributors received incredible critiques, and were often made to rewrite their articles up to five times before they were published. When you read them, they are crystal clear because the authors had to explain themselves to these two very, very bright minds. Reddaway, as I mentioned the other day, was always saying: "May I ask an idiot boy question?" Then he would floor you by getting to the heart of the misconception or the incoherence in your argument.

James Meade was very good at this as well. He was an unassuming man in many ways, and modest, considering his tremendous achievements. However, he also had a good act, he would say, stroking his chin: "Well, I'm not a clever chap, but have you thought...?" There was a famous occasion in 1957 when Nicky Kaldor read to the research students and others at the Department of Applied Economics seminar from the proof sheets of his 1957 *EJ* article on a model of economic growth. James was there. James lived out in the country at Little Shelford, so he always went home by bus. Anyway, Nicky, as I said, had no idea of constraints; he talked for two and a half hours about his great technical progress function, his theory of distribution and so on. As we now know, there was a fatal flaw in one of his assumptions. He came to the end and James did his act: "Hmm. I don't really know whether I understand this, but have you thought...?" He then pointed out this major fallacy in the argument - it was as though you had a beautiful tapestry, pulled a loose string and the whole thing unraveled in front of you. Then James said: "Well, I'm sorry Nicky, I have to go to catch my bus now." Reddaway and Meade had quite a lot in common in the way they did things.

I should think about summing up, but first I want to say that when I went to Cambridge, these were the people who dominated the faculty, along with some other, very good people – Phyllis Deane, the economic historian; Michael Farrell, who died far too young, who had come from Oxford, a most original person. The Department of Economics had been run by Stone until 1955 and then Reddaway took over. Stone then started the Stone Brown Growth Project, which was a very important continuation of what Keynes wanted to be done at Cambridge and, I'm sure, what he would have wanted to have come out of the DAE. Alan Brown, (some of you may know him as Aichison and Brown, the log-normal distribution) said to Stone: "Look, you specialized in demand analysis, you specialized in input-output analysis, and you've specialized in the national accounts. You've had researchers working on these three areas. And you personally made important contributions within them. Why don't we put all three of them together in a growth project where we make up scenarios of where the British economy is likely to go over the medium to the long term?" So they fed in Keynesian ideas, demand theory ideas, and the emerging input-output analysis so that you've had production interdependence associated with Keynesian ideas and national accounts, and Stone's own demand theory.

When I was a student, we had to do something called confluence analysis. How many people have heard of confluence analysis (bunch map) analysis? That was the way in which you then did demand analysis. It was invented by Frisch and applied by Stone in a whole issue of the *Journal of the Royal Statistical Society*, Stone (1945). You had to do all the calculations on a Marchant calculating machine; tremendously time consuming and it's completely obsolete now. If you want to learn about it, read Mary Morgan's wonderful history of econometrics, Morgan (1990). Phyllis Deane was starting her pioneering works in economic history, applying Keynesian national accounts to understanding the Industrial Revolution and development in Africa. She was then in the DAE. There was a group of about 20 Ph.D students, the vintage of 1955-58 and on, which included a whole group of bright Australians, and the vintage included Tom Asimakopulos, Amartya Sen, Pierangelo Garegnani, Luigi Pasinetti, John

Whitaker, and Charles Feinstein (who subsequently became the Professor of Economic History at Oxford). We all inherited the legacy of these people. We were looked after by Piero Sraffa. That was one of the jobs that Keynes secured for him to get him to stay in Cambridge. Unfortunately, when we met Piero, he was still slightly aloof because he'd fallen off a mountain in 1953, climbing with Nicky, Joan and Richard, and had fractured his skull. There is a funny story – well, not funny, semi-tragic. They thought Piero was dead, or at least was going to die. They were sitting around his bed crying, and saying: "Piero, don't leave us." Suddenly, Piero regained consciousness and said: "Why are you lot making such a row? I've got an awful headache and all I want to do is sleep." They thought that all this outpouring of grief and concern for him had fallen on rather barren ground, which indeed it had. It took a long time for him to fully recover his memory. When it finally came back, do you know that the last thing he remembered was the sun shining on Nicky's bald head as he tumbled off the mountain. That's enough to make anybody tumble off a mountain, I might say. There was a lot of anti-foreigner feeling in the 1960s when Tommy Balogh and Nicky Kaldor were advising the Wilson Labour government. They were both Hungarians, and were known as Buda and Pest. Of course, Balogh was a Pest and an extraordinary man. Nicky was Buda, a very large Buddha. So you can imagine the effect of his bald head and large body being sighted as you fell off a mountain.

I wanted to mention all this because the younger people I have mentioned became important economists in the Cambridge tradition. There are two major routes that came out of the tradition, starting with Marshall. One goes through Keynes and the other goes through Pigou; it is concerned with welfare, income distribution and inequality. This is the branch that Amartya Sen very much associates himself with. I remember him being rather bad-tempered when we had a celebration in King's of Skidelsky finishing his great three-volume biography on Keynes. Surprise, surprise, we talked about Keynes; Sen said, "Well don't forget about Pigou." Both branches were extended by James Meade, who not only was a devout Keynesian (he was absolutely devoted to Keynes and developing Keynes' ideas and applying them in policy), but also interested in fair taxation, the distribution of income and property. He always said: "I'm a Lib-Lab person (a Liberal and a Labour person). I'd like people to have free choice, but I like the Labour idea of having full employment." He tried to persuade Hugh Dalton, who was the Chancellor of the Exchequer in the early post-war period, to impose a large capital levy on accumulated personal wealth because, he said: "While I'm happy for a competitive market to determine the distribution of income in people's lifetimes, I don't think anyone should have a flying start by having any inherited wealth." Even the Socialist government held up their hands in horror at, you know, this bolshy Meade trying to destroy the foundations of capitalism as we know it. Once I wrote a biographical entry on James, Harcourt (1985, 1993), and said what marvelous, humane policies he advocated, the only limitation to them was that he was thinking of a world made up of kindly, progressive, just persons like James Meade, which is not how the world is made up. A lot of his policy recommendations were fine and idealistic and he was still proposing them up to the end of his life, but they were not always practical enough to be accepted by politicians or fit with situations of realpolitik.

The other person I want to mention is Luigi Pasinetti because I regard him as the senior living heir of what I would call the proper Cambridge tradition associated with Keynes, Marshall and Sraffa, leading back always to the classical economists. He was already developing those ideas when we were graduate students. They've come to fruition, as I mentioned the other day, in his great books, Pasinetti (1981, 1993, 2007). He lectured at Cambridge on and off for a long time before he went permanently back to Italy. So he has been carrying the flame. He and I disagree as to why this Cambridge tradition is dying out, why Joan and Richard, in particular, but also Nicky, weren't able to place successors to keep this particular tradition alive. Though Joan, Nicky and Richard were terrible faculty politicians, they did get Luigi appointed to a lectureship, they had me appointed to a lectureship and other people besides.

They would have appointed Sen had he been willing to come. So I don't think they can be faulted on that. Where they fell down was that they were not successful in getting the chairs of Cambridge filled by people with views in accord with the Cambridge tradition, so that now Cambridge is really just a clone of the attitudes and approaches of leading American schools. It's rather sad celebrating 75 years of *The General Theory* when, if you go to Cambridge now, you only find Tony Lawson and Gabriel Palma. Ajit Singh and Bob Rowthorn have retired. Jim Trevithick is also retired. He is a true, proper successor to these, I think, excellent ideas. The younger people are scattered around in Land Economy or the Judge Business School or some of the colleges. You will not find what I found, first as a research student there in 1955 and then a young lecturer there in the 1960s, which was the most exciting intellectual time in our life and, Joan and I always say, possibly the happiest time as well. Our married life has been extraordinarily happy, but there are gradations of happiness, and we were very happy living in Cambridge in the 1960s. Exciting things were going on and university lecturers were relatively well paid. We had two, then three children. We had a nice house at Elisley Avenue, which we could have bought for a thousand pounds when we left to go back to Adelaide at the end of 1966. It is now worth probably one and a half million. But, of course, I'm an economist, so naturally... whereas Joan is much more sensible than me and said: "We ought to buy it!" Oh dear, but she still stuck to me, we've been married for over 57 years and she doesn't bring it up too often, just every time we think about it... This is all rather sad.

Nevertheless, as Avi said today, there are some lasting ideas, approaches and attitudes in Keynes, his pupils and colleagues, which will survive. When they come to write the history of economic theory in a hundred years time, I think that they will mention Keynes and, of course, they will mention Kalecki, I'm sure, and I mentioned Joan Robinson, Richard Kahn, Nicky Kaldor, Piero Sraffa and, I haven't mentioned him tonight, but certainly there will be mention of Wynne Godley (and Godley and Lavoie (2007)). Godley I think has made the biggest step forward in ideas which amalgamate an approach that comes from Marshall and proper Keynesian ideas both about how the world works and how to design policy to make it work better. Richard Goodwin and Michal Kalecki will have much prominence too a hundred years on. So I thank my lucky stars, I regard myself as one of the luckiest people in the world to have been associated with this tradition, to carry on the Cambridge oral tradition because a lot of what I have told you tonight I am not going to ever write down. Of course, I don't mind gossiping. When Joan and I first married, she was worried that she was not an economist. She was an excellent philosopher and a great appreciator of English literature and psychology. After one term in Cambridge she realized there was no need to worry because when economists gather together, they never talk about economics. All they do is gossip about other economists, and she felt she could understand that. So I hope that you regard this lecture as a fitting end to your conference. You may not have learned any economics, but you have eavesdropped on very interesting gossip.

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