**50 Years of Life in Britain – Transcript**

**Episode 1: The British Births Survey, the 1970s and Tony Blair**

Lee Elliot Major 0.06

One week in April 1970 17,000, mothers and their newborns were asked to take part in a survey to find out more about the first week of life. This became known as the 1970 British Cohort Study, BCS70. And this year the study turns 50. So, welcome to the podcast that celebrates the 50th birthday of a special study that has transformed our understanding of British society. I'm Lee Elliot Major, Professor of Social Mobility at the University of Exeter, and I'll be your host over the next six episodes as we trace the story of BCS70 across five decades and consider the future of this amazing study.

For episode one, we're going back in time to the very start – 1970. Labour's Harold Wilson was in his last days as Prime Minister. Michael Eavis was soon to stage the first Glastonbury Festival. And ‘Bridge Over Troubled Water’ was number one, offering hope and comfort to the tired mothers and their fragile offspring. Little did our study participants know, that many would be involved with another nine surveys of the study over the next five decades, acting as our guides across the era, they would go on to show us what it was like to grow up, learn, work, love and age in modern Britain.

Study member 1.34

School milk, that's something I remember. Not something I remember very fondly, it was all a bit congealed and not very nice.

Study member 1.44

We used to play in the woods and in the fields, it was fantastic. There was no sense of danger back then. We could climb trees until dusk and come home, wash your knees, go to bed. No problem.

Study member 1.57

I mostly remember the summer of 1976 being boiling hot. I remember a hosepipe ban. I remember the endless days of sunshine and that was a really happy time.

Study member 2.11

The Queen's Jubilee where we had a street party and all the neighbours took part. From school getting commemorative mugs and coins, which were really exciting.

Study member 2.23

I can remember we used to have power cuts. It was all to do with the Winter of Discontent and all the strikes and politically it all went over my head, but I just remember the experience of being plunged into the dark.

Study member 2.37

I remember, there was a guy, he had a Raleigh Chopper with carpet stuck all over the crossbars and some playing cards attached to the spokes of his wheels with clothes pegs so it sounded like a motorbike when he was riding along. And I just thought that was the coolest thing I've ever seen.

Lee Elliot Major 2.55

By telling its story, we'll be celebrating the amazing contribution the study has made to British science and society. We’ll interview the researchers whose findings have influenced government policy, as well as the policymakers and politicians who have eagerly digested their results. And last but not least, we'll hear from the study participants themselves, without whom none of this would be possible.

But first, what is a birth cohort study? Well, it's a study that follows people at key stages across their lives, providing unique evidence on how they develop from infancy into childhood and adult life. The findings show how early life circumstances shape later life outcomes, uncovering the roots of many sources of inequalities.

In combination, the cohort studies have been used to chart and understand the big changes in society that have occurred across the generations. BCS70 is one of four national birth cohort studies, and one of three based at the Centre for Longitudinal studies at UCL’s Institute of Education. Over the lives of participants, academics have collected information on their health, family, education and economic circumstances, helping to paint a picture of what life has been like for this generation, often called Generation X. In this first episode, I'll be chatting to Professor Leon Feinstein, whose research on the initial childhood surveys of BCS70 had a profound impact on the New Labour government. We'll also be hearing from study participants who will recount their memories of taking part when they were children.

But first Professor Jean Golding. Professor Golding is an epidemiologist and was a key member of the team charged with data analysis of BCS70 in the 1970s and 1980s. She had cut her cloth in an earlier cohort study from 1958, and so it was natural that she would become involved in the 1970 study. I began by asking her about her earliest memories.

Jean Golding 4.59

It wasn't started as a cohort study and nor was the 58 study. They both started as a birth survey, as did the earlier one, which was 1946. So you had this series, which they repeated every 12 years. But did they learn from it? No. They didn't say we're starting a cohort study. They said we're doing a birth survey, which, in retrospect, was probably a good idea. I don't think they planned it to be a good idea, but once you say we're doing a cohort study, people look at the amount that that’s going to cost and back away.

So 1970 was a birth survey built on the 1958 plan. And that plan had been to look at what caused so many babies to die, both before they were born, and after they were born. So the 1970 cohort was to look in particular, at the quality of life of the babies being born. They knew that the death rate had gone down, but what they didn't know was how healthy the newborn babies were and what could be done to ameliorate any problems.

Lee Elliot Major 6.25

And to clarify, so the 1970 birth study originally was to explore some further details about early development that we hadn't looked at him at in the ‘58 cohort.

Jean Golding 6.38

Yes, it didn't get very far in that sort of sense. It got much more exciting when the children were five. And that's when Neville Butler decided to follow them up. But that was the first time that anybody had thought we should follow this cohort.

Lee Elliot Major 6.56

And you worked with Neville Butler, did you? Because that's quite a name now.

Jean Golding 7.00

Yes, I did, it was quite a name then.

Lee Elliot Major 7.03

So he was the first really to think about following up people as they progress through life?

Jean Golding 7.09

Well, he was involved in the 1958 cohort, but took part in planning the follow-up of those children. So he was familiar with the concept and the 1970 cohort he had a free hand in designing how to follow up through the early childhood.

Lee Elliot Major 7.30

Can you tell us a little bit about what it was like to work with Neville, because he's such a big name in this area?

Jean Golding 7.38

Um, challenging, inspiring. He was a mercurial character who had masses of ideas, which would just tumble out one after the other after the other. And every so often, they were brilliant. So I looked at my task of sitting at his feet and trying to discern which are the really good ones, and taking them and running with them.

Lee Elliot Major 8.06

It's interesting, isn't it? Because people now, you know, just assume that these studies are here for us to look at, and they're so important and looking back at history and how society has changed, but they often rely on individuals to make them happen. That's sometimes gets forgotten. Right?

Jean Golding 8.24

Well, that's certainly the way it used to happen. It was always somebody spearheading, it was a revelation to see the way in which Neville approached the follow-up because he was a paediatrician, very much involved in the development of children. And very much aware of the way in which physical and mental health of children interacted, and interacted with their parents. So he was pretty far-reaching in his visions.

Lee Elliot Major 8.58

Some of my colleagues overseas are always envious of us, Britain for the richness of data that we have. Do we know how unusual it is to have had the 1970 cohort?

Jean Golding 9.10

Yes, it's, it's very unusual to have national cohorts, and this is partly involved with people who take the lead and whether they are happy to spend their time forging forward and raising the money and having ideas, rather than taking data off and analysing them and, you know, going on the talking circuit.

Lee Elliot Major 9.37

You worked on the 1970 cohort, right. It's very computerised now, isn't it? What was it like in those days?

Jean Golding 9.45

I have a more vivid memory of the 1958 cohort. All the information of the birth surveys were on punch cards. The team involved would take 17,000 cards to what's called a counter sorter at British Gas somewhere in London, I wasn't involved in this, I had two young children I had to look after, thank God. They would be sorting the data out, doing the sort of things that we would do in terms of creating tables and that sort of thing, it wasn't doing the computations. So it had developed a little bit by 1975 when I got involved, but it was still sort of fairly simple computing. It was nevertheless computing using proper computers. But I have always felt that it was important to get to know the information in a lot of detail rather than just press a button and write down the answer.

Lee Elliot Major 10.50

I guess the beauties of the cohort studies is not only the longevity, but it's the multidisciplinarity of them as well.

Jean Golding 10.56

Yes, that's really incredibly important. I mean very obvious once you start thinking about it. But other cohort studies you see in different countries tend to be focused on very specific things. So you get asthma cohorts, or cohorts to look at what has happened that involves the development of autism say, but they still cost a lot, but they can't do other things, because that's the way they're designed. Whereas the multidisciplinary ones are very important. And the COVID thing where we’ve all sent out questionnaires right away, I think is particularly important as an illustration of how looking at all sorts of different things will fit into how you look at COVID.

Lee Elliot Major 11.57

I'm going to talk a little bit about ALSPAC. You were really responsible for starting it, which is amazing! How did your, you know experiences of the 1970 cohort help you in establishing that new cohort study?

Jean Golding 12.10

I think it was the most important influence on my way of thinking because of the way in which it tried to marry the medical and the psychological and the social; all sorts of different aspects of the physical environment as well. So that was particularly sitting at the feet of Neville Butler getting to know people who were involved in cohort studies and the way in which they were approaching different aspects of them.

Lee Elliot Major 12.42

Why is it important then that BCS70 continues? And indeed, the cohort studies continue as a whole?

Jean Golding 12.50

Well, one of the most important questions is going to be what is it that influences the development of dementia and old age. And there's a lot of evidence that what happens early in life may well have an impact on that. So it's going to be a question of having longitudinal studies so that you can look over time, particularly having different cohorts. There are different environments that you are exposed to early in life in the different cohorts. So comparing one cohort with another to look at such outcomes is really important. And you're there ready to monitor anything that pops up as a new disease or a new craze or, whatever the cohort, so well worth the money spent.

Lee Elliot Major 13.46

Already in the 1970s, BCS70 was seen as highly significant and a worthwhile investment. But what of the study members? This is Generation X, people born between the late 1960s and the early 1980s. More and more mothers were working and the divorce rate was rising. This generation is also referred to as the latchkey generation, as they had much more unsupervised time. Throughout this series, we'll be hearing from the study participants, our own generation Xers who made it all happen. Here's a flavour with their thoughts on their generation.

Study member 14.23

Oh, gosh, we're Generation X is that what we’re called? Children of the 70s! You know, and then we've burst into technology and the, you know, the difference that that has made and having to keep up with that. And I feel that, you know, we we've had the benefit of that compared to my parents who are an older generation who, you know, technology is pretty difficult for them. So I think in our lifetime, that's been significant.

Study member 14.50

In some respects, I think Generation X we're lucky in lots of respects, I had the opportunity to go to university, so it seems absolutely crazy now that my fees were paid to go to university. And I was actually given two and a half thousand pounds to live on, there was an opportunity there and I took that opportunity. My generation, perhaps didn't realise it at the time how lucky we were to be given the chance to get to university irrespective of whether you could afford to go or not.

Study member 15.27

We're in the midst of this pandemic, and what that's going to mean? And you know, I think that's highly significant for us as well as being part of this study. How has that impacted on us and people of our generation and how you might, how we've dealt with it, then gone on to inform people in the future.

Lee Elliot Major 15.48

What was happening at that time? What do we know about the early 1970s? Here's what the early results from the birth survey tell us.

Narrator 15.57

One in seven participants were born at home. Nine out of 10 parents were married when their child was born. 50% of mothers had smoked while pregnant. There were 189 pairs of twins and one set of triplets. The average age of mothers was just 26. The three most common boy’s names were Paul, Andrew and Mark. And the three most common girl’s names were Sharon, Joanne, and Sarah.

Lee Elliot Major 16.36

So what was it like to be part of the study? Recollections from the early years of study are fading, but there are slivers of memories. Here’s James reflecting on being part of the cohort.

James 16.49

I think my earliest memory is when I was at primary school and I think it was like a health check. And it was in the head teacher’s office and asking questions and my mum was there. I think it was in the infant school. So that must have been when I was five or six. So I think that's probably my earliest memory of it, my mum would have explained it. And so from an early age probably did, you know, know, sort of what's happening, and every time there was a questionnaire to fill in, or we had a visitor or, you know, a health check. You know, she was always keen that, that I took part and that we completed it fully. And, you know, I think she'd saw it as an important thing and honoured to be part of it. And also, there was another pupil in my class that was also part of the study. So I remember from quite a young age that we used to talk about it and we always knew that we were born at the same time because our mums were in the maternity hospital at the same time. So but I remember from quite a young age, sort of, you know, chatting with her about the study.

Lee Elliot Major 18.03

Dr Leon Feinstein is Professor of Education and Children's Social Care at Oxford University. Few pieces of research have had such an impact on government policy, as Leon Feinstein's analysis of BCS70 data. This examined the links between family background and children's cognitive development. The research was part of Leon's PhD in the early 2000s. It showed how high-achieving children from poor backgrounds in their earliest years, appear to be overtaken in their later cognitive development by lower-achieving children from affluent backgrounds. This was important as it suggested that children's environments rather than their raw talents, were shaping how well they did at school and in life subsequently. The findings caught the attention of Prime Minister Tony Blair, and within the year 500 million pounds had been assigned to a national programme of preschool provision across the UK.

Tony Blair 18.58

Ask me my three main priorities of the government. And I tell you, education, education, and education.

Lee Elliot Major 19.09

Leon told me that he was initially interested in the 1970 study, because he felt a real connection to the generation.

Leon Feinstein 19.16

The 70 cohort is so interesting because that's, I suppose, to me the closest to my life, you know, as a child that, you know, went to comprehensive school, and was part of a postwar generation that really had the benefit of huge investments in opportunities for development. And part of a period of history in which inequality was reducing and social mobility, on some definitions, on some measures was increasing. And there was this notion of change, but there was also this very clear sense after you know long periods of Conservative rule, big questions about the degree to which you could really generate social change and the degree to which inequality, social class inequality, particularly in the UK, is unchangeable, or whether you can really get at it. And that was a very interesting question to me.

Lee Elliot Major 20.10

This PhD has been more impactful, certainly in social science than any other I would argue, over the last 30 years. You know, never has two lines on a graph had so much impact in terms of stirring debate about inequality in an early childhood development. Can you for our listeners, explain that curve, or the crossover line for us, please?

Leon Feinstein 20.38

So here's the graph from the 1970 cohort study. And we're looking at children at four points in time, based on the measures that were in the cohort study, using particularly the sub samples of data that were available when the children were 22 months old, 42 months old, age five and age 10. So at four points in time from 1970 through to 1980. And then all I really did was take two variables in a sense. The first one was a measure of cognitive development of the children, at those four points in time. This isn't a measure of cognitive ability per se, this is a measure of relative performance compared to other children at that age. I then as a second variable took a measure of social class, essentially the occupation of the earners in the household, primarily the fathers in these data. The pattern that you see that was striking and interesting to people was the advantaged kids, the upper class kids who scored poorly at 22 months, their scores just continue to rise through the four periods. And the working class kids who scored well early on, their scores declined through the period to age 10, but it's important to say, at 42 months and at age five. So later on in a different set of tests more than three years later, the working class kids who scored well, early on, at age five were still doing better than the upper class kids who scored badly early on. So it wasn't all noise at all. Three and a half years later, there's still an average difference between those two groups. But by age 10, the two groups have crossed over. And the upper class kids who scored poorly early on have overtaken the working class kids who'd scored well. And that's the crossover that you mentioned, and I think, generated a lot of interest and was part of the impact of the graph. And it wasn't an intentional thing. It was one graph in a series of analyses that helped in explaining the broad general finding, which is that inequality in this sense, that social class dominates over early signals of ability in influencing where children ended up in the 1970 cohort in their school development.

Lee Elliot Major 23.10

Researchers spend lifetimes looking for a breakthrough graph like this. You produced a PhD at the beginning of your career, which was explosive in in many ways. I'm just wondering on a personal basis, has it had a personal cost on you? Just because it's had so much scrutiny?

Leon Feinstein 23.28

I mean, firstly, I was very fortunate in a way that the PhD came out when it did. You know, it was just at the beginning of a government that really wanted to invest in development, in child development and address inequality. So that the key issues of the graph I think, really spoke to policymakers at that time. I always dispute the idea that it had impact. It's very hard to say what drives decision making. I'm very sceptical about the degree to which single analyses drive decision making, I think it was useful. And it helped people focus and it helped people discuss and maybe there was an ambition there already that the graph helped kind of symbolise to people, but it didn't drive the interest in development or inequality of the New Labour government by any means. And when you look at how the graph was used, often, it was to emphasise the importance of the early years. And that was a debate that had been going on within the Labour Party for 20, 30 years. So I'm sceptical about impact. But at the same time, I've lived off that graph. I can't complain. You know, there were four papers in my PhD. That was one of them. And you know, it's kind of frustrating that the only thing I've ever done that will ever achieve public debate was that but you know, I'm grateful for it.

Lee Elliot Major 24.56

I think the graph did contribute certainly to the wonderful – in many ways, in my view – renaissance in terms of early years funding and policy under the New Labour regime, and I remember going to conferences across the world and other countries being really envious about this bold move. So can you say a little bit about what happened under the Labour government? Because it was a huge thing at the time, wasn't it? The Sure Start centres?

Leon Feinstein 25.24

Yeah, absolutely. And I mean, I think ‘Every Child Matters’ and the kind of child poverty coalition would be two central elements of that. And the New Labour government came in with a real and tangible commitments to reduce relative and absolute child poverty, and that shaped a lot of policy. ‘Every Child Matters’ was a rich framework. It wasn't actually just about social mobility. It was also about child protection, of course and safeguarding. And those two themes came together in ‘Every Child Matters’ as a theoretically rich framework of theory and science to shape policy together with investment.

Lee Elliot Major 26.10

So there's this famous crossover and I think the thing about it, as you say, was that was so compelling about this was that it showed that to some extent social class was trumping if you like, some innate ability, if I can call it that, again, I'm careful those terms because they're so loaded. It prompted an intellectual debate didn't it, as well as a policy debate? People to this day are still reviewing your graph and interpreting in different ways. I mean, do you still stand by your findings, all this time after the original publication?

Leon Feinstein 26.49

I stand by the graph in the sense that the graph is figure two of the paper in 2003 describes the data accurately. All the issues are interpretation and meaning, that's where all the subtleties are. I regret not complaining about the description of children based on a 22 months score as dim or bright. And that was a misinterpretation of the graph that, I think, is a big risk in public use of social science, and is a hard issue that you point to, of how do you deal with uncertainty. You have a career Lee of trying to influence policy and you know, how hard this is, and then I've tried to do it from within government within the civil service, and I know that if you talk about uncertainty, you can leave the room. It's no use at all. And, you know, policymaking is a quick and unnuanced process in many ways, although there's great skill to it and fabulous people trying to do it, but you have to get this balance between certainty and uncertainty. The science is uncertain. Science is uncertain, social science is uncertain. 22 month tests of children do not tell you anything fixed about their ability. And yet they tell you something. And the nuanced conversation is about development. I always kept the graph the way it was with the big shift between 22 months and 42 months, where you have this phenomenon of all the groups coming back towards the middle. Because of the measurement error at 22 months, some people have wanted to analyse that away. To come up with measures that address the measurement error as they see it and provide true versions of that graph. I think that's a mistake for two reasons. One was, it was very useful to have the big shift between 22 months and 42 months in the graph because it helped me explain to policymakers about the huge amount of noise in the early scores and to have a conversation about how 22 months and 42 months scores don't tell you innate ability, and there's measurement error. And all children’s’ scores move about a lot. And yet, if you think about this, not about the stories of individual children, but about a picture of society, it's showing you something that is true about the general tendencies in our society. And you have to be able to have both of those conversations. The other reason I think that graph, and that research, and the cohort studies have so much impact is I think there's something very democratic about letting those data speak. Those data have spoken in a way, given a voice to the people in the cohort studies to reflect their experience in public and scientific debate. And I think there's a really important democratic function for cohort studies in that way. And so I think there's something important about actually reporting uncorrected data. These are the actual scores. The big issue for me probably was what happened in the transition from Labour to Coalition and Conservative government. I was a civil servant during the transition. And Sir Peter Riddell, I remember saying in a talk to civil servants that when the government changes, the evidence changes. And I thought that can't be true? The evidence is the evidence. The science is the science. What is he talking about? But it was totally true. Government sets policy. And it's very hard in the Civil Service or even as a scientific adviser to government to go against the policy. Public policy sets a framework within which evidence itself operates, what questions are being asked. What kinds of answers are acceptable or believed, and what kind of proof is required, all of those things changed. And it was fascinating how very early on in the coalition they did their social mobility strategy and then the kind of assault on the graph came. The issues with the graph that had been true all along that there is measurement error and this phenomenon of movement towards the middle of the chart, I could talk about why I don't call it regression to the mean, but that might be another topic for another day.

Lee Elliot Major 31.23

So what do you think the future holds for BCS70 and the cohort studies?

Leon Feinstein 31.28

It is shocking we haven't had another birth cohort study. But you think about this generation of children, who have experienced both austerity and now pandemic. Children being born now are experiencing such different lives, even to the Millennium Cohort, and that we have no data on how those patterns are going to influence structural inequality or the characteristics and experiences of children across the country in a substantive way. I think is a shocking indictment of this government's commitment to data and evidence about children, and indeed about social policy.

Lee Elliot Major 32.04

Jumping back to 1975 here's a flavour of what was happening within families up and down the nation.

Narrator 32.13

At age five, one in three mums worked regularly outside the home. 60% of participants shared a bedroom, and 10% shared a bed. Half had a colour TV and three in five had a telephone at home. Two in five were read to at home every day. A third of mothers felt children should not talk at the dinner table.

Lee Elliot Major 32.39

Quite a change from these days. Gillian is a member of the 1970 cohort, and she remembers the study when she was age five.

Gillian 32.48

I was quite shy, hiding behind the curtains when the lady came to interview me. So I wouldn't come out from behind the curtains and had to be sort of shamed into coming out and there were like various little games and tests and things that she was doing. And they sort of shamed me by getting my younger brother to do them. And eventually I was sort of coaxed out from behind the curtains to take part. But yeah, I was quite nervous.

Lee Elliot Major 33.18

In the next episode, we'll move into the 1980s to find out how Neville Butler kept the study going during a decade of austerity. We'll learn about the benefits of reading for pleasure for children's English and Maths skills. We also asked study participants about their teenage years and find out what it was like sharing their 19th birthday with 4000 other people at Alton Towers.

See you next week.

Narrator 33.50

50 Years of Life in Britain, powered by UCL Minds. I hope you subscribe to join the celebration.