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**Sir Stanley Peart FRS in interview with Dr Max Blythe
Oxford, 6 May 1993, Interview I Part One**

MB Sir Stanley, you were born in 1922 in the north-east of England. Can we start by you telling me something of those northern beginnings?

SP Yes, I was born in South Shields, County Durham, therefore I'm entitled to count myself as a Tynesider. Of course I didn't stay there long, I left when I was three, but most of my relatives come from Tyneside. My father ... left to move south. In those days of course on Tyneside, depending on your background, you know, who your father and mother were determined, you know, where you ended up really. If you weren't very rich – in other words if you were poor – you had only about three ways out of Tyneside. You either went down the mines, you went into shipbuilding – remember at that time there was a lot of shipbuilding, the *Mauritania* was built on the Tyne, you remember. And the other thing you could do, there were four ways out when I come to think of it, you could either take up boxing – there were quite a few early boxers from that area, a bit like Glasgow you see in that way – or you could play football. Now it so happened that despite the fact my father's father – and I never met my grandfather – was a ship's chandler, in quite a reasonable way of building, I mean I remind you really that he went off to Jamaica for his holidays, at that era that was quite something to do... There's more of that actually in a story later of course. But despite that my father¹, who was good at football, became a professional footballer ultimately. He didn't want to go down the mines, he didn't want to build ships, and so he became a professional footballer. And he did well. And because of this and the fact that on the whole most roads to the south, like they did from Scotland, you know, while they weren't exactly paved with gold they were distinctly the routes to take if you wanted to get out of Tyneside. And that was the route he took.

MB He never played football on Tyneside?

SP Yes he did. He started with Newcastle United and went to Nottingham and Leeds, eventually. But he broke his leg before the First World War, but he did very well. I mean he played at international level, so that he was pretty good, and...

MB So when you were born he was on Tyneside, he was training footballers at that time?

SP He was playing actually, he was a footballer. My mother was nineteen when she married, and...

MB Was she also a Tynesider?

¹ Jack Peart.

SP She was, but her family come from Scotland. Her name is Fraser(?), and she's distinctly Highland Scottish actually ... origin.

MB So there's a nice Scottish thread in the story.

SP Yes there is. Even on my father's side it goes back to Scotland. I always deny this of course, you know; I regard myself as English, but ... of course because I've lived here so long I am English really.

MB But anyway this move southwards...

SP Yes, it took us ... you know, from the age of three the first move was to Rochdale in Lancashire. And of course I started then, when I'd started to take more notice of things, my memories then start to become established, I can remember these things fairly well. And you know, you can remember ... people coming round to light the gas lamps in the street. You know, I remember looking out of the bedroom window and seeing this, and seeing the mill-girls. You'd hear the mill-girls going at five in the morning, you see, in their clogs.

MB The knockers-up²?

SP Knocking... Yes, absolutely, real knockers-up. And you'd hear the clogs on the pavements going down to the mills in Rochdale, and...

MB That's quite an experience.

SP Oh yes, it's something I really do remember, and I...

MB You remember that more than Tyneside?

SP Yes, yes. Oh absolutely, my memory at three was nil, as far as I'm concerned nil! But Rochdale I do remember, and that was quite...

MB And you went to school there?

SP Yes I went to school, I went to an elementary school there, and that was good. I can remember that. I remember ... the tradition, I think it's a bit like Harold Wilson talking about his boyhood, you know. I remember wearing clogs, you see, I mean because clogs were good things actually, you know. There were hard leather black tops and you'd got the sort of horseshoe thing on the bottom of the wooden ... they were really rather like Dutch clogs, but that's what people wore. And from certain backgrounds that's what you wore anyway, and that was good. And apart from anything else you could slide in the playground better on the ice, you know, with those things on.

MB And they were generally comfy?

² 'Knockers-up' were hired to tap on the window to wake workers one hour before their shift.

SP Oh they were, they were good, you know. I wouldn't want to make too much of it, you know, it's not ... but it was something you remember, that was all. And that, I remember the headmaster at the school there too, strangely enough, and he was...

MB He made a...

SP ...a good influence, he made an impact on me.

MB Do you want to put him on the label here as it were; do you want to put him on the record?

SP Well, just that he, you know he had ... he was strict and he had high standards. I remember sort of the things he used to say, you know, about how you really had to apply yourself if you wanted to, you know, do anything. Because the school I was at, you know, was full of the children of people at the mill, at t'mill, and so on. It was just like that.

MB So there was a lot of poverty around, you could feel that?

SP There was a lot, a lot of poverty at that time, and, you know, the mills ... the cotton mills at that time of course were doing quite well, reasonable. And ... of course now they've disappeared largely because Indian cotton is better, and so that's all gone largely. So the next major move though, from Rochdale, was again... Because my father had become a player manager then, he managed the club. Moved on to Bradford across the Pennines. So, he then became manager of Bradford City Football Club and he ... I remember that very well indeed.

MB How old were you when you went to Bradford?

SP Well, I would be about seven or eight, something like that. And now that made a very, had a very big influence on me actually because my memories of life then became sharper. And the school I went to there initially had a very big influence on me. That particular headmaster there had an even bigger influence because he was, he really demanded pretty high standards, you know, from an elementary school, and it, it just... A Mr Tapp(?), who really, you know, said get on with it and you had to get on with it. I remember one of my early experiences there was, you know, how do you break out of the elementary school environment into anything different. My mother was always tremendously keen on education. I mean, you know, that's the sort of tradition of, I think its the Scottish tradition really coming through in a way, you know, because education matters, it doesn't matter what, you've got to be educated because that was the way to a better sort of life. And she always pushed me, and that's an abiding memory anyway of my mother.

MB She was a deeply caring woman. Perhaps we could take her in at this stage, and just say something more about her, because she was a great influence on you.

SP Yes, she was, she always remained so actually. Herself not well educated, but with an appreciation of education somehow, you know. You meet it in the Scots, you

meet it in the Welsh; it doesn't matter what the background, the education is the key to a different sort of life.

MB It's a kind of inborn sense of taste, as well.

SP It's a sort drive actually to, you know, that ... even if your own background isn't anything terrific, you have that inner knowledge that somehow it's going to be better for your children.

MB And she was fun in the home, she was a lively lady?

SP Oh yes. Yes she was, indeed, actually. And she of course had been left at the age of fourteen without her own mother, who died early, and she had to look after and bring up her own brothers. And so she did. She was just a couple of years older than the eldest brother. And the, her youngest brother is still alive today, he's ninety-three actually, so that I hope I'm like him! But, you know, he's still going strong. But she in actual fact pushed me always, and, you know, though she didn't, there wasn't much reading in the home or anything like that – much more talk of football and things like that, so I was immersed in that aspect, you see... But she was determined. And fortunately so were the people at this elementary school. They pushed me and... I remember one of my earliest experiences ... to get out, to get to the grammar school, Bradford Grammar School, you see, which is a very excellent school. It's gone from strength to strength; it's one of the best schools in the north. At that time that was the, that was the goal. You either, of course, at that time you went to a secondary school which was really, you know, not quite ... you know it was more a technical school; it was rather the same relationship as a poly used to have to a university, you see, that sort of link. But it mattered more in those days of course, you know, because that was it – you just hadn't made it. You'd end up working with your hands if you went to a secondary modern school, you see, whereas the grammar school offered you, you know, the opportunity of other things, professions. It was what you aimed at, for good or bad reasons, but at any rate that was what we were aiming at. And I remember there were country scholarships, you see, those were the days where thing, there were minor and major scholarships, you know, those would take you. And because our income was not, as a family wasn't very great, that was what had to be looked at. And so we entered for the minor scholarship which ... but the age... There's an age-related thing, you know, the majors for the older people. And it so happened that my birthday, as it falls on the 31st of March, it was a day over the top age limit for the minor scholarship, and I remember dissolving into tears. Now this was a sad memory for me because I was told I'd have to take the higher-grade scholarship, and I, you know, and that absolutely devastated me. I can remember it, and feeling I'd never, never make this.

MB The odds were black then.

SP Well, you know, that's right. And so I went into this, and I remember taking this exam and thinking oh this is awful. But then fortunately I made it! So that I was given this entry scholarship to Bradford Grammar School. And that was a tremendous thing because that led me into all sorts of different subject areas which I'd never dreamed of. You know, languages, maths, and physics, chemistry. All the

things that, you know, you need. It also introduced me to rugby football, because that was ... that was good, because that lasted me rather a long time in my life.

MB So we could spend a few moments talking about Bradford Grammar School at this time?

SP Yes. A good, a good school, and there've been some quite interesting sort of people have come out of it. But it was an important part of life in Bradford at that time, because that was the major school. And it was at the, in fact it wasn't far away from the Valley Parade football ground where my father was managing Bradford City, you see. But it, they set you standards which ... you know, you really knew you had to work very hard to achieve, and they never let you off the hook. And that was a very important element for me. And it stood me in good stead with my next move, you know, because these were very formative years.

MB You'd looked forward to going there for quite a time, but when you got there was it, was the reality as good as the ... as you envisaged it?

SP Oh yes. Yes it was, it was, it was good. The sort of people ... because it took in a lot of people from different backgrounds, it was a cross-section of life. It wasn't, as so many schools are, you know, restricted to a sort of ... middle-class sort of background, it wasn't like that, it took from a wide area. And that suited me very well, of course.

MB And you were given the idea that this was a very proud foundation, well-respected right throughout the region.

SP Oh, absolutely yes. Bradford Grammar School is...

MB Had traditions to...

SP ...still, still has got, has got a long history.

MB Do you keep in touch with the school?

SP No, not at all. I've not actually kept in touch with most of my schools, for one reason or another. And don't ask me quite why, I wouldn't understand quite why, but I didn't.

MB But anyway you got into the scholarship and the discipline of that establishment.

SP Yes, that's right.

MB Are there any staff there who particularly made impact on that early career that was going to be scientific?

SP No, those came later, and ... it was just the general education that mattered, because...

MB And the sport.

SP And the sport.

MB That was going to be important.

SP The sport was very, it was still very important to me. Of course, as you can imagine, playing rugby was not exactly my father's idea of a good thing. You know, he thought I was letting the family down! Not seriously but, I mean, you know...

MB You got chivvied about it.

SP Chivvied, yes, that's right. But I took to that tremendously.

MB I was going to come back to father. What was it like having a father who was a football manager in a, in a town like that? Was that an advantage?

SP Oh yes it was. Oh, it was an advantage.

MB Because he was a personality, as well, a well-known local.

SP Yes that's right, he was, that's right. And the team was well known, you know.

MB So it was an advantage. A plus.

SP It was a plus actually.

MB I'd also wanted to drop back and ask another question, I'd meant to come in before but we went on ... on something that was more exciting at the time. How did father and mother cope in the home, because father must have been out a lot of the time?

SP Oh yes, he was. And my father was a much more withdrawn sort of person, very shy. Very self-educated. It's very strange, he had, he really had very little education and ... but he sort of, you know, he taught himself to type, to keep books. He used to do the whole job for the football club, you know, kept all the finances in order and all that sort of thing, you see, but that was all self-taught. But he was, he was a very shy man. He really, his depth of conversation was not very deep actually at all, very restricted to his interest, and ... in contrast to my mother who was much more intense and, as I say, intent on seeing that her children got on. You see, I have a brother that I haven't mentioned, but he was six years older than I was. I was probably sort of a great afterthought actually. But she was intent.

MB Your brother went to Bradford Grammar School also?

SP No he didn't. He went to another school, he didn't... My brother, who was extremely talented as a musician, he could write well... He'd got a lot of talent. What he hadn't got I think was stickability. In other words he couldn't stick at a task

for long enough to achieve, you know, what he might have done. That of course distressed my mother somewhat, but she kept on nevertheless.

MB We'll come and talk more about your brother in due course, but we've set the scene of the family then. Father a bit distant then a bit more remote, but an interesting figure.

SP Yes, yes.

MB Mother very constant and a great support.

SP Yes, that's right, absolutely.

MB Centre of a loving home.

SP She ... she really was the key, she did everything.

MB Did she live long enough to see a lot of your career?

SP Oh yes, she did.

MB A great reward for her.

SP She lived until she was eighty-four, you see.

MB Right. So the threads of all this longevity are all there?

SP Yes, that's what we all hope isn't it? But we're not always right!

MB So we've got Bradford Grammar School, important influence. You didn't complete your school career there though. You had another move.

SP Another move.

MB But this is a bit to the south.

SP Big move, big move this, you see. Because I'd been to London once... You know, to London was, you know, as a child was something you only dreamt of. And I can remember, you know, those old buses with the outside staircase going up the outside to the top deck, well I can remember those only too well. They had those sort of rather cast iron sort of, you know, spokes on the wheels – you can see pictures of them in an old film. Well, I can remember those only too well, and that's my main memory of London, I'm afraid! I must have been about...

MB But there were lots of them around, they were an impressive force.

SP Yes. I must have been about ten at the time. But that was what I remember. Everything else at that stage, no, but then... So the move to London, well, that was quite something.

MB This was when you were thirteen, fourteen ... fourteen?

SP Yes. It was 1935 that we moved to London. And I came down with my father because he had to manage Fulham, by the Thames, Craven Cottage – where Nell Gwynne was said to have met Charles³! – I'm never quite sure whether I believe that or not, but anyway that was the story. But that was something you see, and of course...

MB (?)

SP Yes, that's right. We lodged initially with a family called Goldsmith, who were descended from the poet Goldsmith, you see, and that was in Fulham. And we lodged there for the start ... and my mother was clearing up the home in Bradford ready for the move. And, so we were there and I was launched into this school, you see, now this was King's College School, Wimbledon. Now this was a complete contrast with Bradford Grammar School.

MB Great culture shock.

SP I was stuck in there, you see. And of course at that time I obviously was speaking with a Yorkshire accent. You see, as you notice I've lost any vestige of that. But that ... it's interesting as I reflect now, because most people would accept accents and stick to them, you know, as a matter of pride. Well I was suddenly stuck into the middle of what I would call a school with a mass of, you know, bank manager, industrial children in there. And I was very unhappy, tremendously unhappy at first because I just couldn't make contact. They didn't, they didn't understand me at all, and I didn't want to understand them, you see.

MB Didn't quite fit?

SP I didn't fit, for quite a while. And, you know, because ... I always remember with absolutely terrible pain going to... Because the report was sent down with me from Bradford, you see, I mean saying that I was reasonable at various subjects. And they put me you see in the top French class. And I can always remember this terrible French master! I can see him now, you know, asking me in French some question, and I sort of answered it with a sort of Yorkshire accent, quite wrong! And the, all the pupils there laughed. And that was devastating for me, you see, I felt so awful.

MB Would be for anyone.

SP Yes. But nevertheless, you know, I can, the fact that I can remember it is not good news. But then things improved. After that, you know, I gradually got into the swing of things and it was better.

MB What were the pluses that arose?

SP Oh well, there were a lot of pluses. The major pluses on the science side were the considerable ones. I was never very good at English and French. German I really

³ King Charles II. Nell Gwynne was his mistress.

enjoyed actually, as it happens, as a language. But I remember it mostly because of the German master, I guess, who everybody was taking the mickey out of all the time. You see, it was one of those sort of memories, you know, you have. But there were some extremely good people there. And there was one master called Diell(?), he was Scottish. He was a funny lone sort of man, but he had ... he taught Latin and, you know, that was fine. And he also was responsible for the rugby; that's another aspect which made him rather special in my eyes. But the physics and chemistry was taught by really dedicated people, you see, and I really got a great deal out of that. And the biology master was the man that really had a tremendous influence. It was...

MB Shall we put his name on the record?

SP Yes.

MB He was...?

SP It will come to me in a minute or two!

MB Okay, we'll work on it.

SP We'll have to work on that actually, because ... you've got to realise that forgetting names is part of the penalty of getting older, I'm afraid. But...

MB But he was a major influence.

SP He was a very major influence. He was a very dedicated man. He taught the botany and zoology. And those were very important subjects. It's where I came into contact with the chap that became the Secretary of the Royal Society subsequently, Keay⁴. He was about a couple of years ahead of me at that time, but I remember him well. We exchange reminiscences because he was similarly influenced actually in his career. He became an expert in forestry actually – Keay that is – subsequently. Unfortunately there's a sad end to this story, because this master who used to take us on the botanising trips and so on, at Boxhill in Surrey and things like that, he committed suicide. He'd obviously got some inner sadness which we of course didn't appreciate as boys, at the time, but it was there. So that was sad. But the science side of King's was very good. And that's unusual perhaps at that time, because science in schools was usually not of a high standard in terms of teaching. But these people were really dedicated and very good.

MB When did you first begin to feel a medical career emerging?

SP Well, rather late, you know, because I was as you see ... '35, you see, we're coming up in those formative years, I'd be about thirteen in '35, so we're coming up to the beginning of the war. And I was very interested in zoology. That was really ... that interested me a great deal more than botany.

MB What aspects, I mean, you were dissecting, you were interested in anatomy?

⁴ Ronald William John Keay. Executive Secretary of the Royal Society 1977-85.

SP I was, I was interested, I was always interested in the structure of creatures.

MB There were good laboratory opportunities at King's?

SP Oh very good, I'm sure they were out of the ordinary for a school. And that, they have actually ... because I have kept slightly in touch with King's I know that they've pushed this very hard, and I've seen the, their laboratories and they are absolutely superb. They've concentrated very much on the science side of their curriculum, and that's been reflected in what they've done in the laboratories. Very good. So there's been a long tradition, so that's been good.

MB But we were charting when you might have decided that medicine...

SP Well, I...

MB Was that at sixth form level?

SP What I... Yes, absolutely, sixth form level. Remember with the A-Levels at that time – what we called the Higher School Certificate – you had to concentrate, you had to specialise at an early age. Not too early at King's actually. But it was, you know, chemistry, physics, zoology and botany, so you did ... those were the four sort of science subjects, and maths. But I was never any good at maths actually, so that hindered physics obviously but didn't hinder the rest. And I was very interested in that and I was, I tried very hard with the scholarship to, entry to Oxford. But I always remember that old building at Oxford, the zoology, department of zoology, you know. And I can still smell it actually, because... I remember, this is where I first came into contact with Aldous Huxley. You may say well how did I come into contact with Aldous Huxley. Well when you were taking the scholarship exams, they used to put you in the undergraduates' rooms when they were on vacation, you see, because these exams were always, the scholarship exams were in the vacation. And I drew one where, you know, what the student, what the undergraduate was reading was on his shelf. So I was ... the night before I could not get to sleep so I picked up one of these. And of course Aldous Huxley to me was a kind of revelation because I'd not read any Aldous Huxley before! But I can remember that before these exams, which incidentally I took twice because I tried again. And I remember the zoology department where we had ... to identify certain structures. And I remember this unfortunate rat with, you know, they had little needles in there, pins in there with labels. And you had to identify the structure, you see. I was damned if I could identify enough of these structures, you see, because I hadn't done this, and, you know, I just couldn't do it. But I was aware of people around me all looking very happy writing down! So, I remember ... every time I come across Magdalen Bridge actually and I pass that building it brings back very unhappy memories for me. So there it was. So I was offered a place but not a, not an exhibition or a scholarship to Oxford. So Oxford marred my life actually in a way. Not really, but you know, when I go...

MB It was an early disappointment.

SP Yes it was, yes. I was very disappointed. And we couldn't of course as a family afford, you know, to pay fees to go to Oxford, so that was a make or break

point, you see. So that I was thinking again. And the careers advice chap at King's was advising me about all sorts of unlikely careers which I wasn't terribly interested in, you know. And I happened to be going ... in the chemistry master's room there were, he kept papers in there, you know, and he told me to go in there. And I was just looking and I saw a scholarship to St Mary's Hospital ... that was the paper, you see. And I read this. And I wondered whether I, whether I should even contemplate it, because, you see, to take medicine, you know, from my background, even having been at King's was not something ... you know there were lots of sons of doctors at King's but in a sense I just didn't think it was for me. But anyway I looked at this, and it looked, you know, the sort of thing that if you'd got decent higher school certificate placings you could interview, if they thought you were worth it they'd give you a scholarship. And that was where of course I went to be interviewed. I asked...

MB An incredible moment just picking up that paper.

SP Yes, well that's right.

MB Just look at the influence in the long term.

SP Well, absolutely. But that was it, quite literally that was it! And so I went up, and I was interviewed by Charles Wilson as he was then. He became Lord Moran, Churchill's doctor subsequently. He was the dean of Mary's. He was a very important man in the life of St Mary's because he'd rescued the medical school in the past. Great friend of Beaverbrook⁵, and in fact the library was paid for by Beaverbrook, very nice library at St Mary's.

MB One of the great figures of twentieth century medicine in this country.

SP Absolutely. But, you know... So Moran, he interviewed me, and I remember, you see... Reverting back to one of the influences that made me more acceptable initially at King's was the fact that I could play rugby, you see, and they were rather proud of their rugby team so that I did quite well at that. Now, you know, doing well at anything in life is a great help. I mean it doesn't matter what it is, tiddly winks or whatever, if you do it well it gives you a little bit more self-confidence! So I did quite well at rugby there, you see. So that was important at St Mary's, because, you know, at that time, one of the ways in which Moran had rescued St Mary's was he said 'How are we going to get our students up to a standard which says that this medical school is worth preserving?' Because it was going through pretty hard times in the thirties, you see. And he said 'Well, what I will do' – this is obviously what he said – 'What I will do, I'll go out, get people that are good at sports, because I know that along with their sporting activities you're likely to get intellectual activity as well, coming along with it.' And he went out and he collected a whole host of real internationals at all sorts of sports, but rugby was the predominant thing. You see, before the war Mary's was always jeered at as being, you know, the professional rugby team. And that wasn't quite true, but they'd been given scholarships, you see.

MB It was a powerful team.

⁵ Lord Beaverbrook.

SP I mean, oh, people like Tuppy Owen-Smith, you know, the South African cricketer, rugby football player, international level. There were lots of international level players.

MB So Wilson did his homework well.

SP He did. But he actually did manage to pick people with other characteristics, you know, which were good for the medical school.

MB While we're talking of your rugger we should just put on the record that it was quite good at Wimbledon.

SP Oh it was, yes.

MB I mean, that was one of the great things. We didn't label that particularly at the time, but that was one of the great things of your school career.

SP Oh it was. It was good. It was, as I say, a passport to being recognised as having a little extra, that was it. And of course I used to play wing three-quarters, and you had to run quite fast, and I could actually run quite fast. But this takes us back to the initial interview you see at St Mary's, because one of the questions Moran was interested in having answered was, you know, 'Well, you play rugby. How fast do you run the hundred yards?' And I roughly knew how fast, so I thought well if I take .2 of a second off it will look good! So I said 10.2, you see, which was somewhat faster than I could run, but I mean I sort of brazened it out a bit. And that was it, that was the major question I remember, you see, because he was more interested in my sporting abilities at that interview than he was... You know, he accepted the fact that I'd got the right grades and things like that, and so on. And lo and behold they offered me a scholarship. So that meant it was possible to go there, and that's where I went, you see, in '38.

MB Your parents must have been delighted about that.

SP Oh gosh.

MB They'd settled in London quite firmly by that time.

SP Oh absolutely, yes. We'd got our house in Worcester Park in Surrey, and that was, that was it, and so we'd sort of made the first step. But a sequence of events which I still... I'm not inventing any of it, it just, that's the way it happened actually. And ... well, from then on I really found my *métier*, I mean it was just something that revolutionised my life actually. Just...

MB Tell me something about the pre-clinical years into which you arrived.

SP Well, that was, that was very interesting. I met a lot of extremely important for me, and important in other ways, sort of people. The most important thing for me was that the onus was put upon me to do things and to do them with my own hands, and to... You know, for the first time, instead of being instructed ... though we were instructed, there were problems put before us. And while people, you know, have

arguments about the right way to teach students ... I mean there was, you know, there are obviously different ways for different students. But it was so important to me to meet people that had looked beyond the immediate and asked you questions about what was going on. I mean that was particularly so, strangely enough, in a subject like anatomy which at that time was very topographical stuff. I mean, you know, Vesalius⁶ wouldn't have found himself out of place there. But there was a very young professor of anatomy who was Australian. Like his lecturer. His lecturer probably was only about three or four years older than I was actually at the time, but... And he was ... very, they were both very thoughtful Australians. Sadly this professor of anatomy, who was a chap called Gray⁷ who was very anthropological in his interest like a lot of Australian anatomists have been, you know, contributed a lot in the area... But he looked at structure and form and function as well and he was most interesting. And of course he did research work. Now research work in anatomy departments sort of at that time, you know, before the war was sort of not common. But he did. And he was very interesting. He was interested in lymphatics. And of course we always used to wonder, because he used to inject himself with thorium-X actually, you know, to show up his own lymphatics. He died of a cancer of the lung, but...

MB At an early age.

SP Mid-thirties actually, you see, and whether the combination of thorium-X with cigarette smoking, which was probably a more important factor, caused his early death I don't know. But he had a ... just a way of looking at things which influenced me.

MB So Gray was ... quite a seminal influence?

SP He was important. But the other people that were there at the time, who were in physiology, were very important too.

MB Just before I move on there, this junior lecturer Pritchard⁸...

SP Yes, Pritchard is...

MB Pritchard had quite an interesting career.

SP Oh, he did actually. Well he came over as a young Australian, and then he subsequently ended up in Belfast as the professor of anatomy there.

MB But also didn't live long.

SP He didn't live long, no, he died at ... he was slim when I first knew him and hew was fat when I last knew him actually, and I think the two may not be unconnected. He didn't smoke, but he perished early for one reason or another. But he was, he was another refreshing ... that was my first encounter with Australians who come into my life over and over again actually, as you will find subsequently.

⁶ Andreas Vesalius, anatomist (1514-64).

⁷ James Hugo Gray.

⁸ John Joseph Pritchard.

MB With a kind of rough, honest approach to medicine.

SP Oh absolutely, and to life actually! You know, I mean I was, that was tremendously refreshing, you see, because he had the coarsest set of stories you can imagine. Anatomists often do have actually! But there it was, but that was very important. But the physiologists, now they were interesting, you see. The professor of physiology then was Hugo Huggett. He was, at that time he was little regarded, and in fact he was regarded with some amusement by the students because they used to always try and take a rise out of him. I mean, I was at a lecture where they let off pigeons at the back to flutter around in his lectures, sort of typical thing that medical students are meant to do, but... And he couldn't, you know, his ... he didn't lose his temper over this, all he did, he tried to disregard the situation, but he couldn't easily. But he was working on the placenta in sheep, and he was one of the early real pioneers in research on the foetal-placental relationship. We didn't realise it fully at the time, you know, but his work subsequently was recognised to be of really first-class importance.

MB Conducting(?) blood flow.

SP That's right. But he was, he was a very unusual man actually, Hugo. But he'd chosen some very good lecturers. There was a ADM Greenfield, who was one of the early measurers of blood flow in man, devised techniques for really measuring blood flow. And he subsequently went to Belfast. When I knew him he was a lecturer in physiology and he taught very well. And again he was doing his research, introducing it into his lectures and enthusing you with it. The, perhaps the man that had more of an influence was Frazer⁹. Now Frazer, spelt with a z, was a nephew of a very eminent anatomist – Frazer, *The Anatomy of the Human Skeleton*¹⁰, he did a great deal of work which was anthropological in its contents really about the development of the human skeleton frame. And, but Frazer was in physiology at the time and he worked with Harold Stewart ... not a well-known pharmacologist. Pharmacology at that time was a very infant subject, you know, and certainly in London there was very little of it taught. But they worked together on fat absorption. In fact, they made some of the first interesting experiments showing the division between the absorption of fat by the gut through into the lacteals, and the other mode of absorption which led into the portal vein. So that division of fat absorption and what had to happen to the fat – neutral or oesterified and so on – and that was ... that was their early work.

MB So they were among the first to discern that?

SP Yes they were, and they were...

MB And with fairly crude techniques at that time.

SP Yes, absolutely. I mean, they were staining the neutral fat with Sudan red, that sort of thing, and showing that it, that was transported through in the fat. And they were showing us these experiments at the same time.

⁹ JFD Frazer.

¹⁰ Professor J Ernest Frazer, *The Anatomy of the Human Skeleton*, London: J&A Churchill, 1914.

MB It's exciting that you were shown ... I mean, you were able to look at the research bench.

SP Absolutely.

MB As a fair junior.

SP Yes. The students were encouraged to do that.

MB I was going to ask if you'd seen Hugo Huggett's kind of work on the sheep placenta.

SP Oh yes, yes, indeed.

MB That must have been a fascinating time, to actually achieve anything with that kind of a...

SP Absolutely, well...

MB ...situation.

SP ...he used to have... He had a very good, as good as they did at that time, they had to have an extremely good animal technician, because they were, they had the pregnant ewe in the bath, you know, totally immersed actually. And they were studying what happened to the placental circulation ... in the bath.

MB In saline?

SP I mean that was... Absolutely. And those were, well we used to, of course at that time we used to, we didn't understand the significance of that work of course as students, but we certainly did later. But he had a really good group of young people around him, you see, so that whatever the students thought he had the capacity to hold ... those three people were very very important in the life of students. So that was a, that was a good introduction. They were very good. And Frazer of course subsequently went to Birmingham and really started off the department of pharmacology there. Stewart stayed at Mary's. Stewart is still alive actually. So that, that's it. There were other people around in the pre-clinical era but none of them had that sort of influence. The chemists were ... there were people teaching real chemistry at that time, you know. Organic chemistry, which I'd always been quite fond of, they taught organic chemistry very well, they really did. So that organic chemistry was something that, you know, stayed with me.

MB It was a kind of privileged time for education then. That was a privileged time.

SP Yes. For medical students now to study chemistry would be almost unheard of, I think. You know, I mean it would just, it would have been replaced by social sciences in the curriculum.

MB And to get that close to the research bench.

SP Yes, absolutely. No, no, you had to do the experiments. You see, practical aspects of education seem to have got less and less and less, you know, so... Probably I don't know how many students have ever dissected the whole body, but... I used to enjoy anatomy because ... I just liked it. It was obviously some sort of aesthetic quality, even about those shrivelled frames. There's a certain beauty in seeing that when you look where a nerve goes and how it gets to its destination and ... to display it nicely, it gave me a lot of pleasure. I used to ... I remember shocking my dear old mother ... in the summer. I, you could buy brains off the local curator of, you know, who looked after, preserving, embalming the bodies and things like that, because at that time there used to be more bodies available than there are now, I guess, that was one of the things. But he used to make a little on the side you see by taking out the brains and selling them to you, you know, for a fiver. Well, a fiver for me was quite a lot. But my mother actually gave me the money to buy this brain. And so I took it, I remember being in the shed in the garden, and I ... with *Gray's Anatomy*¹¹, because that is what we had as a guide to the brain, and I was trying to see the various tracts, you see, in the brain and the various structures. And that was really ... I found absolutely fascinating. But that was in the garden shed. You know, it would be an unexpected finding for somebody walking in there, I guess, but it was...

MB Potent years. It must have been a terrific time.

SP Oh it was, yes.

MB The war was...

SP Impending.

MB ...looking more widely, was getting...

SP It was, because you see '39 came, and it was, that was a very, as I think I've told you before, it was a, that was a difficult time of decision for me actually because I felt very much that I should have joined the RAF as it happens at that time. And I felt, I still, you know, feel some pangs about it because to be in what's called a reserved occupation isn't exactly ... not one of my happier memories in that sense. At the same time there was the family pressure of knowing that my mother and my father would have been desperate if I'd done that. But that doesn't, you know, doesn't lessen for me the feelings I have about it, I've still got it. If you recognise ... when I discuss it, it was, it was hard. But that was it. So we carried on with the medical education. And of course at that time my rugby then led me into fair disaster – just to turn from a rather more important to a less significant issue – because I encountered my first serious accident at playing sport, and I broke my tib and fib, my tibia and fibula. I remember it being broken by a rather rough London Irish player, who sort of cracked it. So, then I ended up in hospital and I had to have it reset.

MB You must have been on your back for a while.

¹¹ *Gray's Anatomy* was first printed in 1853 and went into many editions.

SP I was, for about four months. As it happened, because London was then being bombed, we had to be moved out to Harefield where the ... which is now much more famous. It was then a TB sanatorium and chest diseases in general, but it was also a decanting area for London hospitals. So that, that's where I next met my next lot of Australians and New Zealanders, because they were coming back from having been wounded and damaged in various ways, for their treatment. So that's where I learnt to sing *Waltzing Matilda*, you see, that was, that was one of the songs they taught me!

MB Did you perform it well?

SP Not too well. But they ... that is also quite interesting because Moran took a keen interest in the fact that I was in there and came to see me with his wife. For the dean to come and see a lowly medical student is...

MB That's terrific, isn't it?

SP ...quite interesting isn't it, as a sidelight on him as a busy chap.

MB You felt closely associated with him, I mean there's a good feel that he...

SP I became his house physician finally actually, which, you know ... I didn't see a lot of him then but nevertheless...

MB It was a good relationship.

SP It was a relationship, absolutely. He, I suppose he didn't want to see his investment go down in value actually!

MB Did you play again after that?

SP Oh yes. Oh I ... once I recovered I started again, yes, sure. Oh I, I was determined to succeed, that was a big set back for me but, you know, that was just by the way.

MB Now we've got into the war years, and probably we're getting to the stage where we can start talking about the clinical course.

SP Yes.

MB Have we missed anything?

SP No, I think that, that really does take up through to the second MB and then through...

MB What actual date did you start the clinical course. Was it, would that be 1940?

SP It would be about, it might have been '41 actually, I think it's about '41. Interestingly I'm somewhat vague about some of these dates, you know. Why that should be interesting I don't know, but I am. The ... before that I, you know it was possible then, and this actually goes on to my subsequent relationship with the

College of Surgeons, because at that time when you did your second MB – you know, anatomy, physiology and some chemistry ... and pharmacology – you could actually do your primary fellowship for the College of Surgeons. So I thought well, I'll do that. I'll knock that off. So that's when I first went to the College of Surgeons to take this exam actually, the primary fellowship. It was in the usual pre-clinical subjects, you see, so that you were examined by admirals and generals in the armed forces, if you see what I mean, they were in the medical arms of the armed forces, so that I remember that quite vividly at the College of Surgeons. I never realised that I would end up after I'd retired medically speaking to go back there actually, but I did. And I can still remember some of the lectures being given there by an anatomist who's still alive actually, it's amazing, and the physiologist who's still alive. They're ancient now. But it was, it was interesting. So I got, I got my primary FRCS actually! I keep quiet about that. But the clinical course again was something which was very exciting because you were doing things again with your own hands...

MB Put you up another step.

SP ... you were independent. And there were very few people around, you know, to supervise you actually at that time, as you can imagine, being the war. And, but ... so you did a great deal. You know, it was the days, you used to be called clerks on the medical side, dressers on the surgical side. Now when they talk of being a dresser, there's a meaning to that description because you actually did dress the wounds. You see, you've got to remember this is the days, the era before antibiotics. I mean sulphonamide was the only, which had been discovered in, by Domagk¹² in 1936, but it was used. But, you know, some of the better derivatives of sulphonamide weren't available. And in any case wound sepsis was part and parcel of your everyday activity you see, so you just got ousted to it. So you actually had to fold the dressings; you see, the nurses would help you but part of your job was to be responsible. Now that was just like being a clerk, you see. You took the histories of the patients, you did everything for them that you could. You did as much in some ways as the nurses used to do, you see, so you became a very special link to the nurses which medical students now are not really usually in that sort of situation.

MB And a very close association with patients.

SP Oh, well that was, that I loved you see because it, you played an important part in their lives actually without realising it. It's just retrospectively, you know, that sitting down to talk to them ... that opened my eyes to all the diversities of human nature all the ways in which people reacted to circumstance, all the things they told you about their life. I learned an enormous amount from that. And it sort of matured you in a very quick way actually, and a very desirable way too, because you sort of, you felt you were doing something for somebody. And that was a very important feeling to have actually. And I hope that, you know, that ... though sometimes I wonder whether removal of medical students these days from that very intimate contact... You see, nowadays you hardly ever take blood from patients. Now, you know, if you've struggled trying to abstract blood with rather blunt – in those days the needles weren't as sharp as they are now! – with blunt needles having sterilised the, make sure that you sterilise the outfit because, you know, reaching for the, all the

¹² Gerhard Domagk (1895-1964).

apparatus which is now in a plastic bag, sterilised, throw it away. In those days what you had to do was to really make sure you had, there was a little autoclave on the ward, and you had to make sure these things were right, and then you'd have to struggle with the patient to get blood out of the vein. And unless you've struggled with them and realised you're inflicting real pain on them by being inept, you know, you've not started. Nowadays you see you have phlebotomists on the ward – what a title – professional blood takers, because the students say this interferes too much with their major activities. Well, I sometimes think the priorities are a bit ... a bit off. In the same way, you know, it's ... you had to test the urine, you had to look at the nasty stools and faeces and draw conclusions by looking at them. Well, you know, I often reflect sometimes that students, the only faeces students ever see are their own actually, you know, rather than the patients, and the same goes for the urine. You see, all these important, very intimate contacts with patients were thrust upon us.

MB You were in at the deep end.

SP Oh, in at the deep end. And, you know, I remember... Because, you see, the operating theatres for example in that time were on the top of the building, that's where they were, and of course they couldn't have them up there because of the bombing, so they had them down in a converted ward in a building in the hospital. And I remember assisting at, you know, operations on tumours which ... in most, you know, if you look at the surroundings, a converted ward and people struggling to sterilise everything, and that was where... You know, I was very interested in surgery at that time. It was dramatic, you know.

MB There was a possibility you might have taken up surgery?

SP Well, you know, I took my primary fellowship because I thought... Boys so to speak at that time were very influenced by the drama of surgery, you see, and I became somewhat disenchanted with it subsequently, obviously, but then again that leads me on to another influence. But there were quite remarkable surgeons around at that time, I mean, things which in retrospect, when you think of what people demand of their surgeons or physicians these days... The, there was one surgeon who shall be nameless who used to do total mastectomies for cancer of the breast. I mean, that was his noted speciality. But he was brought up in the good old school. He was a very nice man. He impressed me because he used to sit in his out-patients, and... Great gangling chap, he was about six foot six and he had enormous hands, you see, surgeons don't necessarily have very petite hands, you know. And he used to always shake hands with the patients as they came and sat down opposite him, and he didn't have anything between him and the patient, no desk, he was there and he made that contact. And that impressed me a great deal actually. And, but of course in the operating theatre he was sort of clumsy, you know! He was... But he used to staunch the bleeding after this total mastectomy – it was awful – because he believed that this was right... He just cut the breast off, you know, and then used to ... 'Hot towels Sister,' and these used to be produced with tongs out of a boiling water bath, and he used to put these – it make me flinch to think of it – straight on to this to staunch the bleeding and to, basically to cook the surface, you know. He was the author of a textbook on how to deal with this sad condition. But if people think that, now when you, when you reflect upon the arguments going on whether you do total mastectomy or do a small removal of the tumour, I reflect back on this ... this I have seen actually.

MB Horrendous practice.

SP Yes.

MB At that point we're going to have to take a break and come back with a new tape in a moment or two.