

## **John H. Kennell**

- **Born 1/9/1922 in Reading, PA**
- **Married to Margaret Kennell**
- **B.S. (1944) and M.D (1946), both from University of Rochester**

### **Major Employment:**

- **Case Western Reserve University. (1955-1962) Assistant Professor of Pediatrics, (1962-1973) Associate Professor of Pediatrics, (1973-Present) Professor of Pediatrics**



### **Major Areas of Work:**

- **Bonding and Attachment**

### **SRCD Affiliation:**

- **Member since 1968**

## **SRCD ORAL HISTORY INTERVIEW**

### **John H. Kennell**

Interviewed by Susan McGrath  
At Case Western Reserve University School of Medicine  
February 13<sup>th</sup>- 14<sup>th</sup>, 1995

**McGrath:** I'd like to introduce this as an interview of Doctor John Kennell in February 1995. Would you start out by describing your family background, particularly any childhood and adolescent experiences that may be of interest. You should include the education and occupational characteristics of your parents as well, so you might want to start there.

**Kennell:** Okay, before I do that, I would like you to say who you are, and where you are in space, and how you fit into all this.

**McGrath:** Okay. Well, I'm Susan McGrath, and I've worked with Dr. Kennell on joint research projects for over ten years now, and currently we are about 30 miles apart doing this with the use of phone tech in northeast Ohio, with Dr. Kennell in Cleveland at Case Western Reserve University School of Medicine.

**Kennell:** Well, I'm going to start with the educational and occupational characteristics of my parents. My father grew up on a farm outside Rochester, New York. His mother had probably three or four years of schooling, but somehow learned to read and write, and I spent a great deal of time with her in my first ten years. She was my grandmother, and as far as I was concerned as a little boy, she knew everything there was about the world, and read to me and gave me good things to work on. His father died when he was young, and so he worked and put himself through high school and college, and so he had educational aspirations that carried over to affect me. My mother came from a family that had its origins outside Syracuse, New York, and I really came from a farm, but from her side of the family that generation that she represented was struggling to get an education, the women were struggling to get an education. The men got college educations, and my mother herself was a college student from 1915 until, I guess, 1919 when very few women went to college, and so she was always, I think, a very strong influence on intellectual development. She was an English teacher for a few years before she was married, and I can still see her influence when I am going to correct a paper or a manuscript.

**McGrath: Can you tell me where she went to college?**

Kennell: She also went to the University of Rochester. That is where my father from the farm met my mother, who's father at that time owned a nursery and lived in the city of Rochester. So I felt throughout my childhood that my sister and I were expected to do well in school, and fortunately were able to do that, and I think it does, that background, does instill in you the desire and concept that you do want to progress intellectually and get to a place where you can apply that intellectual background.

**McGrath: I don't want to put words into your mouth, but it certainly says something about role models, doesn't it?**

Kennell: Well, it does. And I can speculate on where it came from, but my parents were, I think, outstandingly supportive of their children. So when I think of other families and their experiences, my parents certainly had a high interest in their children, and really focused their lives around that, and I do think that probably had a great deal to do with my choosing pediatrics. My father started out as a schoolteacher, but then I think his ambitions lead him to think about something else, so he became an insurance salesman. He had been in Reading, Pennsylvania for two or three years before I was born, and then right after I was born he was transferred to Buffalo, New York. I guess I went there at three months of age, and so I grew up in Buffalo, New York

**McGrath: Can I back you up? I do want to know -- I thought maybe they wanted your date of birth, but I don't see that on here.**

Kennell: I was born in 1922, and this is February, so I've just had my 73<sup>rd</sup> birthday. So I went to the public school system in Buffalo, and particularly my grammar school was a very rich experience. And a reflection of that is my class in that school system; you went to the elementary school until the 8<sup>th</sup> grade, then you went to high school. And the group that I was associated with there has kept together, so that we've had reunions. They've increased as we've gotten older, but we had a reunion about twenty-five years after we got out, and then one for our 50<sup>th</sup> anniversary, and we've had a couple since that time. In general, this was just an average working community in Buffalo. We were in grammar school during the Depression, and everybody was very poor, and I think it was very helpful in my growing up, and many of my classmates thought the same thing. Most of them went on to do very well. But because of the Depression, people were mostly poor; there were very few distractions. There were crystal sets and then there were radios, but no T.V., there were not many outside distractions.

**McGrath: You didn't hang out at the video arcade?**

Kennell: No, we didn't. But we -- I remember, in maybe seventh or eighth grade, and so forth, you did your traveling on the public transport, which was great big street cars in Buffalo. And there was a corner drug store where we would gather waiting for the street car, and there were magazines there, and some that were the topic of conversation as you waited for the street cars.

The school that I went to, I guess one thing special about it was that the school was started about four years, perhaps two or four years before I started there, and so it generally had younger teachers and they hadn't been teaching a long time, and they were enthusiastic and very friendly. And when we had a reunion at about fifty years, there were two of the teachers that were still alive and came there. Some of those teachers had kept in touch with us and influenced us as we went along.

**McGrath: I think it says something about the connection that you had with your classmates. I think that's pretty unique.**

Kennell: My class went back around that 50<sup>th</sup> reunion, we went back to that school and visited it and everything was exactly, you know, physically exactly the same, but obviously there were some very different situations there. There had been two entrance doors before, and you played in the playground and then you went in the school. I guess the girls through one door, the boys through another. I don't

remember that for sure, but we, in retrospect, we were very inhibited, and the teachers, at least fifty years later said we were all good children and they didn't have much trouble with us. I think we would have remembered if there was anything. The worse thing the whole class could think of at this 50<sup>th</sup> reunion was one of our classmates, Willis Whiting, was smoking in seventh grade. He went on to be a home-repair person and turned out good. So I think that schooling was a favorable influence and my associations were very helpful.

As you get to my age you wonder why you did get into pediatrics and so forth, and again during the Depression very few people had money to do anything other than what you think of as essential, but my father was able to keep his job. He kept getting his salary reduced over and over and over again during the Depression, but he did keep his job so we were fortunate that way, and so we did have a pediatrician when my sister or I would be sick. The pediatrician was, in retrospect, not very busy, so I can remember when I had a fever and be sick and have some toys that I was working, or puzzles or something, that he would stop and take time to play the game with me or the puzzle with me and so forth. I think that gave me a great impression of pediatricians. It is pretty unrealistic in the age of managed care, but it was the way he was. Then I went through school with many of the same classmates that I went through Boy Scouts with for a long time. I guess from Boy Scouts and camping and so forth, my first summer experiences were to work as a counselor at Y camps. I did that in Buffalo for two or three years, and then one of the leaders went somewhere in New York, and I was then invited to go to a camp related to the YMCA in that city.

**McGrath: So this would have been maybe high school, early high school summers?**

Kennell: Early high school, probably. I think that experience with children did influence me in choosing pediatrics. Then, let's see, I am now going to jump. My military experience; I was very, very fortunate to be in medical school, well, first college then medical school during World War II, so I didn't get into any fighting experience. It was the practice at that time of the military to enroll, they knew they needed people with skills like doctoring, the people who were in the lock-step progression through pre-med to medical school and so forth; they paid for your tuition, which was a great blessing, and you wore a uniform and you marched a couple days a week, but really it just made for freedom from worrying about financial requirements and so forth. The timing was such that I could manage the other parts, expenses by activities after the war was over, but my military experience after that, as a pay-back, was to work in a hospital in Chelsea, Massachusetts, and then to work in a very, very busy clinic in Norfolk, Virginia. Getting out of the big medical center, getting out of the ivory tower, and so forth, in Norfolk, Virginia, where I had very, very heavy responsibilities for the care of an enormous number of children. That did expose me to a lot of the real life dilemmas of children, and I'm sure it had some influence on my activities later.

**McGrath: And neither of those places were academically research oriented institutions?**

Kennell: No. Chelsea Naval Hospital had enough of a connection to the Children's Hospital in Boston, where I had just completed my internship, so I would go back to there sometimes for meetings. And if there were activities at night I would sometimes go back there, so I really saw the tie between what I had been doing and what went on there in the evening.

**McGrath: Actually, I think we have covered number one, then it says any particular early adult experiences that were important to your intellectual development or collegiate experiences. It sounds like you may have covered those. I don't know if you can think of any other things in that time span maybe?**

Kennell: Yes, I think I've covered quite a bit. I would certainly say that the college experiences I had were influenced significantly by the pressure for the equivalent of the last two years of college. It was very compressed. To get into medical school I had to take courses that I would start on January 1<sup>st</sup> and because I was going to have to cover everything between January and March, I would start some subjects at the beginning on January 1<sup>st</sup>, but also on January 1<sup>st</sup> I started from the middle onwards so that I would end up with everything covered by March. That kind of concentration didn't give me much of the richness of college, which would have been great, but I started as a history major and that got swept to one side by pre-

medical courses that were absolutely required. I was very glad I had the intellectual stimulation the first two years or so of college.

I went to college in September 1940, and December 7, 1941 Pearl Harbor occurred and so forth. From then on there was really a very hectic environment with everybody trying to get in various services. And there were parties galore to send people off, and it wasn't long before great friends of yours were reported dead and so forth, so there were a lot of influences, that what I'm going to lead to, is to say that I was fortunate that in my fraternity where I was then living there were probably three of us or so who were going to medical school, and there were others in the college who were going to medical school and we had to find secluded places in the stacks of the library at Rochester, I'm totaling indebted to them for enabling me to learn organic chemistry and subjects like that because there were wild parties going on at the fraternity house and people who were about to go off to war were not pursuing intellectual experiences very diligently. So by struggling to achieve things before I went to medical school then I got into the environment of the medical school and I was very fortunate that the dean of that school, George Whipple said in the very first day, that he pointed out how very, very lucky we were. He had a belief about some recreation in your life, so he said, "I want to insist that everyday for one hour you go to the gym and take part in basketball or squash, activities like that. And even if you don't want to do anything like that there is a poolroom and you can play pool for a period. But on the other hand, he said, "You are so lucky to be in medical school, you shouldn't waste your time reading the newspaper and listening to the radio." I didn't follow those latter two things too well, but that enabled us to really plunge into the medical activities and they were very stimulating, and so that was certainly an important influence on intellectual development.

**McGrath: Do you remember when you decided you wanted to go to medical school?**

Kennell: I think it became clear to me in my first year in college. I hadn't thought of medical school until I got there. I think it became clear to me that a number of the things I had been thinking of didn't seem to me to be ones that would be gratifying to me. I began to see that and I did well in college, and I was fortunate to get into Phi Beta Kappa, and so forth, so I began to think of careers where I could learn things that would continue to give me an education, medical school, and such courses as biology, and so forth, were very appealing to me.

**McGrath: Do you know when you first became interested in child development?**

Kennell: Well, that I have to go on a few years here because there really was no influence on me that was in medical school that I can think of right now. Then I did choose pediatrics, and I did go to the Children's Hospital in Boston, and there was really -- now I have to go back. This was just when the first antibiotics were beginning to be available. Pediatrics had been very heavily involved with very serious, highly fatal infectious diseases, and so forth, so pediatrics leaders had not had much opportunity to focus on child development. But while I was at the Children's Hospital in Boston --

**McGrath: This was residency?**

Kennell: This was internship. And then I was away for two years in the service, as I mentioned before. Then I came back in 1949, and I was there until August of 1952, first as an Assistant Resident, and then I became Chief Resident of the Outpatient Department. Then for the year 1951, I was Chief Resident of the Medical Service, and then for about eight months I had a junior faculty appointment. Now it was when I got out of the early pressures of internship and so forth, that I began to think of influences that got me started thinking about child development. For the first time, a visiting psychiatrist came to Children's Hospital, and I found I was very interested in the things that were being talked about. And in the year after I was Chief Resident, Dane Prugh began to do some studies about bringing in Child Life people to be with children on one of the divisions of the hospital. He was bringing in the concept of maybe bringing parents into the hospital. I think I better back off a bit and just say that what had been my training up until then had been that parents were very harmful for children who were hospitalized. I was told this by the faculty members that I respected and revered, and the demonstration of that was that in this hospital, which was typical throughout the United States, that parents were allowed to visit only once a week for two hours on

Saturday afternoon and there was a call hour every evening from 7-8, parents could call in and you would try to answer their questions.

**McGrath: When you say parents were considered dangerous, because of the danger of infection or some psychosocial --?**

Kennell: Well, I think the origins of it, from things I've learned later, the origins are probably more that they had this fear of infection and things were still very frightening in terms of infections in infants when I was there. For example, there was a terrible diarrhea epidemic the year of my internship. When you were on that diarrhea ward, you almost literally, 24- hours a day were trying to get fluids into children. We had very little of continuous intravenous infusions. We gave things that were called clyses, which you'd inject fluid under the skin of the baby, but you had to do that a couple times a day. I think we gave brief periods of intravenous fluids, but continuous IV fluids, while we did use them, they were not as frequently used and there were all sorts of things that made it very hard to keep those IV infusions going. So diarrhea was a big thing. And as I said, there were quite a few that died when I was there, and then there were other -- all sorts of other infections that were contagious, so I had a reminder there by that. Probably worrying about that, people kept parents out of the hospital. But what the teachers at that time were telling me was that parents were upsetting the children. I'm embarrassed to pass this on.

**McGrath: It wasn't your rule!**

Kennell: What they said was somewhat backed up. Now this is not a scientific comment, but the children, particularly the infants who had gone all week in great despair without their parents, they were very upset when their parents came, and I'm sure they were avoidant and resistant and angry, and everything else that we now associate with the Ainsworth Strange Situation. But during the time that the parents were there, babies would be crying where we had been used to the babies being rather quiet most of the time. When the parents left, then what we'd been told did occur, that lo' and behold, if the parents left the children would be vomiting, and some would have diarrhea, and somehow or other several of the babies would get fevers. So it was a headache to us that had little Suzie going along pretty well with her diarrhea or what have you, and now the parents had been there and she's got a fever, and she got worse diarrhea, and so we, I'm afraid, fit in with that notion. So that was not a positive influence on child development, but unfortunately it was a negative experience. Then when I moved to Cleveland, should I keep going on -- I think that's probably where my influence in child development came along.

**McGrath: Right. Right. Okay. What individuals were important to your intellectual development? Now I'm not sure if we are talking about general intellectual development, you've touched on a few, but I think maybe in regards to your interest in child development and some of those I think as you said come along a little bit later. But was there anybody at this time that you would consider a mentor in child development or a research mentor or maybe a colleague?**

Kennell: Well, I was very fortunate. I was an intern at the Children's Hospital in Boston, so it was sort of the end of World War II, and a very nice community pediatrician had held the department together until the war was over, and then he was succeeded by a person who was actually an Internist, but who had been doing research on children with Nephrotic Syndrome at Children's Hospital, his name was Charles Janeway. He was a very powerful influence on me and on many others. Now he was very kind and thoughtful with every child and every parent. I say at that time he was young and his children were young, and he was carrying it over in his modeling for us, but he was very, very good with that. I remember all sorts of times when his life was extremely busy and a parent would come by, often by chance to his office, and he would then take the next couple of hours trying to straighten things out for them. I thought he was very impressive that way. A reflection of his wisdom or stimulating affection in relation to child development is that he, as I said, was an internist, so he had acquaintances with many people in Internal Medicine and he had a friend, now I forget the details of this friendship. He may have been a college friend. His name was Roswell Gallagher, who'd been a physician for one or two of the very exclusive, fine prep schools, or boys' schools in New England. Dr. Janeway began to entice him to the Children's Hospital. I saw that whole process coming, so while I was there as Chief Resident Roswell Gallagher

moved to the Children's Hospital and he is the one by all means who gets credit for starting interest in adolescent medicine, way ahead of any other institution, and it was Dr. Janeway clearly that arranged that. Then I forget how well I knew Julius Richmond at that time, I knew of him and I had gone to pediatric meetings where I had seen him and talked to him but what I didn't fully realize was that Dr. Janeway had started back quite a ways to entice Dr. Richmond to come to Boston to be head of psychiatry at Children's Hospital and to be head of what's called the Judge Baker Psychiatric Facility. So he came a couple times to Children's Hospital while I was there and then I think it was probably right after I left that I had some occasion to visit Boston and that turned out to be the very day that Dr. Richmond was starting in psychiatry there. So there were these little bits and pieces but they were very big influences in Child Development. I also should say that in Harvard School of Public Health which is right nearby was the person who had made all these – career to developing the growth charts which have been such a big part in pediatrics, I remember having some times to talk to him...

**McGrath: What's that person's name?**

Kennell: Harold Stuart. And then when I went to Boston, I guess this is off the point a bit but I am trying to think of whose influences might have come into Child Development. I had loved my medical school but my medical school had almost no psychiatry. There were sort of optional opportunities to go to an insane asylum and I went to that several times but it was right after I left that a person was hired to start the psychiatry department and became quite a fine psychiatry department at Rochester. When I went as an intern at the Children's Hospital a classmate of mine was at the Peter Bent-Brigham so I occasionally went there and would eat breakfast or something with him and Dr. Romano was the person that was to go from the Peter Bent-Brigham to the University of Rochester and I think that just piqued my interest enough so that I kept track of whatever I heard about from Rochester about psychiatry and the people he brought, some of whom were involved with children. So I guess that's what I'd say about individuals important in intellectual development. I remember a teacher in medical school, his name was Adolph and he was a person that told us about fluids and electrolytes and he was a demanding teacher and again this was during the war and probably they were a little bit kinder to us and maybe it's the case otherwise, but that was really characteristic of the University of Rochester. Dr. Adolph, he really called on you to do your reading and your preparing and he didn't give you cut and dry answers, he struggled to have you figure out answers. I've talked to some classmates from medical school subsequently and I think he was probably our least favorite teacher that we didn't like his teaching style, he made us think so hard and come up with answers which were often not correct. But when I got together with my classmates maybe twenty years later, thirty years later and this issue came up it was interesting that most of us thought that he had probably been the best teacher we had because he did make us think. So you know there are individuals like that that you may realize later on were the most helpful to you.

**McGrath: But if only we could appreciate them at the time, you know? Well, there is a final question in this section related to political and social events that may have influenced your research and writing or your teaching. Again, I'm not sure, I don't know that we need to only focus on the early period but I think maybe it's easiest to focus on the early period and then we can catch up on these same topics as they apply to your time in Cleveland further down the line.**

Kennell: Well, let me just try to see if I can add something. You know I'd say political events would consider the depression important. I think the depression, as I have mentioned, probably was a very positive influence in a perverse way to my development. World War II as I have indicated gave me a special opportunity to go to medical school. I don't know whether we could have managed that otherwise. They didn't provide opportunities for students to work much during medical school; that would have been tough. Then, as I mentioned, what I did in the service I think that gave me experience with real children in the real world and now I jump along a few years. The research I did on bonding helped me to think about a lot of scientific fields, be interested in a lot of research findings such as animal studies. It really fit in with the changes in the 60's and the ups and downs of the research, or the significance of our research have followed very much political lines and the enthusiasm of people about going back to natural events and helping poor people and thinking about minorities and so forth that was a very helpful influence and I guess I'm thinking of areas like bonding and support for mother's during labor and delivery and then that

can be a negative influence and I think a lot of the changes in the Reagan years and the Congress at the present time with a big shift in Congress I think that influences what people think about some of the research that I have been involved with. I don't know that I can see influences on writing but I think it certainly promoted a great many aspects of my research about bonding. All sorts of things that had been sort of suppressed or hidden for a long time began to be apparent in the 60's and 70's and I learned a great deal even though it may not have shown up clearly in research or writing. Then teaching, you know medical-people from medicine as teachers don't get much in the way of training for that so I hesitate even to call what I do teaching, but ...

**McGrath: I think your students would disagree but that's an editorial comment!**

Kennell: The teaching that I did that was the biggest influence was really after I moved from Boston to Cleveland when the major revolution in medical education at Case Western Reserve University which at that time was Western Reserve University and that opportunity in Cleveland did expose me to a lot about teaching and did give me a chance to apply information about families, child development and so forth to the teaching of medical students, each of whom had a family they were assigned and when the pregnant mother delivered a baby the student was with a mother during all the prenatal visits, present during labor and delivery, then took care of the baby for the first four years, was involved with the family for that whole time. That was a wonderful influence, meaning that was one of the influences that certainly got me involved with bonding research.

**McGrath: Western Reserve was unusual at that time in having that kind of a program for medical students, is that correct?**

Kennell: Very unusual and made a good point for medical educators around the world. That was a very broadening experience for me. There were several visitors from foreign lands every week and I was fortunate that I was doing new things so that I was involved with many of them and I learned a great deal from that. I remember a wonderful dean from a medical school in India where they had one full time professor and were just about to get their second full time professor but yet he was very interested in this family program that we had and said he was going to go back and start it in his school. I was amazed at this, naively thinking that Indian students would know about some of the conditions of families in their area and not seeing how with only two full time professors how they could run a big program like that. Well, he said, it is absolutely essential and if we have to do it we will do it. So the essential part was he said, even though the students spent four years or more in the medical school they do not know what goes on just outside the door of the hospital. They don't know what goes on in the homes just outside the door or down the street. So he said, we've got to get the students out into the homes and see what's going on with the families for them to become good physicians, and somehow or other they were able with their limited full time staff with I'm sure plenty of part time or volunteer staff to do that kind of teaching. Now just let me carry this one step further that it was the experience of working with medical students with these families, the fact that I got to Cleveland and for the first time was taking care of quite a large number of families myself starting with the birth of the baby and then following them along. Most of these families were families of physicians, residents, nurses and other faculty members, that gave me a whole new view of Child Development, so there was that influence. Then I was in charge of the newborn service, premature nursery and there got great involvement with obstetricians and labor and delivery and premature birth and prematures and all the things that went on with them and that was a rich experience and it was in the first two months that I was involved with the new educational clinic for the medical students who were taking care of these families but then it was progressively more and more involvement with the general clinic so I sort of was in a very special situation of having to see issues before babies were born, seeing what went on during the birth process, dealing mostly with situations where the baby was not in very good shape and so we had to do all sorts of things with that to help families with babies with malformations, babies who were terribly sick and died, a whole variety of early experiences occurred but then I often followed the families afterwards and then I saw lots of normal children, children of the faculty and residents and so forth were generally suburban families but I was heavily, heavily involved with inner-city families and different ethnic groups so that all together gave me a great background, it doesn't seem to be what your question was but I guess that's sort of social and one of the events that influenced me.

**McGrath: I think so. Dr. Kennell before we move on to any new questions I think you mentioned that there were some things you might like to add about some of the things that we talked about earlier in this interview.**

Kennell: In terms of various events and individuals who influenced me there are so many that I do think I ought to go over a few of them. My period from 1952 to 1966 was heavily, heavily involved with patient care and teaching and so very little research but during that period I had some very important collegial influences. I had a great colleague who was head of child psychiatry, his name was Willard "Bill" Boaz and from him and then from the many Freudian trained psychiatrists, psychoanalysts and psychotherapists I had a very heavy immersion in Freudian concepts. In 1955 or '56 Ben Spock came to Cleveland and I mentioned earlier that I was given the opportunity to start a medical student pediatric family clinic in 1952 when I arrived in Cleveland and in that clinic I was seeing all of the medical students and each student was assigned to a family where the mother was in her last trimester of pregnancy. The student followed the mother through prenatal care, pregnancy, labor and delivery and then, as I mentioned before, for a full four years. Ben Spock when he came to Cleveland – partly his reason for coming to Cleveland was to a great extent due to that educational program, the overall educational program Fithis philosophy but this program in particular. So he worked in the Pediatric Family Clinic two half days a week, he became a preceptor for medical students, he then became after a while the leader of that program. Well this gave me a great opportunity to work very closely with him and not only did we discuss the many, many child rearing issues that came up in the medical student program but I was encountering all sorts of issues with the patients that I was caring for, who I guess I'll call suburban patients mainly, as I had said, medical students, medical faculty, university faculty children discussing those things with him was extremely helpful to me. Through my connection with Ben Spock I was involved in a study that he started planning as soon as he came to Cleveland, then got some funding from the Grant Foundation and I think it was 1957 or '58 that the Spock Child Rearing Study started. In that study I was meeting once every week with a great assortment of colleagues. There were three psychoanalytic psychiatrists. There were three pediatricians - Dr. William Wallace, the Head of Pediatrics, Dr. Spock and myself. There were three or four psychotherapists who participated and we had very extensive interviews each week with the families that were in that study and each person participating in that study had two families. I was given two in the first year but the others had one family in the first year and then another the year later. So in my families the babies were born in 1959, if I remember right and the later group was born in 1960. Well, that program was continued up to May 1994 when in each year we would meet with Ben Spock and in 1994 he announced that he was not going to come back to Cleveland again but hoped that we would carry on. Well, the opportunity where we discussed all aspects of pregnancy, labor and delivery and early development was a very important influence for me and I did during that time, I'm not sure if it would be considered research by SRCD but with one of the people in that group based on experiences with that Spock study I wrote a paper with Litsie Rolnick on the long term effects of relatively minor events during the first few days of life with babies that were jaundiced, babies that had some early breathing problems the parents' concerns went on for a very long time after that. That fitted with something I'd seen quite a few times in my own patients; and then again with my own patients but coming up in the Spock study I wrote a paper with Mary Bergen, a psychotherapist who was in that Spock Child Rearing group, on the effects of brief separations of parents from their children in the first two years and all of the sequellae that came from that. So I came to the period leading up to 1966 with a great many ideas and questions but I had no time for research. I guess I have to explain as a pediatrician you do get a good many activities so I had a large number, at least it seemed to me, a large number of patients I was caring for that I described before. I had the responsibility for the premature nursery and the newborn service, that was really before they'd come to the invention of the term neonatologist, I was the neonatologist. I was involved in a lot of nighttime work and so forth and I had responsibilities for a hospital for handicapped children and was in the 60's much more heavily involved in the pediatric clinic. That was another full time activity.

**McGrath: Not to mention that you had a family.**

Kennell: I should all the way through here say how terribly crucial that was, their support, my wife and children, and I never could have gone through any of this if I hadn't had their support. They really tolerated a great deal.

**McGrath: At the very end of this interview we get to ask questions about them so we'll give them their thanks and all the things they deserve!**

Kennell: I had a wonderful Chairman of Pediatrics, Dr. William Wallace and he could see that I was quite overloaded and I talked to him about a sabbatical and he was agreeable but I needed to get funding for it. I needed to have a plan and through the Psychoanalysts of Cleveland there was a strong tie with the Child Study Center in New Haven and they knew people like Al Solnit very well and I went to the Child Study Center and visited with Milton Senn who was the head of that Center, who after his retirement got oral histories of many members of SRCO. Well, I talked to him about coming to New Haven and he was very willing and friendly but I must have visited him on a rainy, cold day because he said, you don't want to come to New Haven it's just like Cleveland-you have bad weather and so forth. You ought to go some place where you can get a very different exposure. He was familiar with the person who had just become head of what we'd call the Department of Child Psychiatry but it was called Psychological Medicine at the Hospital for Sick Children at Great Ormond Street, the big children's hospital in London. So with his help I corresponded with Guy Michelle, who was in that position and arranged a sabbatical. I was very fortunate that at that time the government had some funds to enable people to go and get different, additional training overseas. It was quite soon after that that the overseas part was discontinued. Well, that was a tremendously rich experience for me.

**McGrath: Do you know what year that was off hand?**

Kennell: I went in July 1966 and I was there for a year. First, the cultural shock was a very big factor. My whole family went so I was learning from them as well as from my own experiences. I mentioned a couple things that happened with that that I think influenced me and it will perhaps come up in later questions you have, but through Milton Senn and then through the many people who were close friends of Anna Freud in Cleveland. I had met Anna Freud and actually had talked to her a couple times about the possibility of a sabbatical in England and she had said she didn't think there was anything there that would be of interest to me or would be appropriate for me. But then when I went to London I did arrange to get into the monthly meetings in Anna Freud's home in Hampstead with a group of pediatricians who were interested in psychological matters and that was a very rich experience. These were really very thoughtful individuals. Ronnie McKeith was one of the pediatricians, he is very well known in pediatric circles. Then my experience in psychological medicine was a disappointment, I won't go into details on that but very little came forth. I did meet Lionel Herzov and the chief registrar, Dr. Anton Bentovim was a person who has gone on to do well in psychiatry but the things I planned to do did not come about but I was very fortunate that a medical school classmate Dr. Kenneth Holt had just arrived at the Hospital for Sick Children which was called "Great Ormond Street" in London and he was setting up a large program in what they called Developmental Paediatrics Pediatrics and he graciously involved me in what he was running in terms of all sorts of workshops while he was waiting to build and establish what was called the Wolfson Center for evaluations of children with handicaps. Well, his program exposed me to some very thoughtful pediatricians who were interested in psychological and developmental pediatrics. I went to many schools, day care centers, facilities for children who were retarded, children who were blind, children who were deaf and so forth and that was a very helpful experience. But through all of this period I was thinking more and more about my experiences with premature babies and the fact that when I went to Cleveland the head nurse and I had worked out a way of bringing parents into the nursery and I tried to tell about that in some of the meetings in London but I had collected no data, and without data there was very little interest. But that built up an interest that I will come to I guess a little bit later. Now the other thing I wanted to say is that I have been so fortunate in my career to have wonderful, wonderful colleagues and I'd like to just mention some names again about how important they were. Ben Spock and Bill Boaz, as I mentioned. Marshall Klaus has been a colleague, whom I really knew from 1952 on but we started to work together in 1967 and are still working together. Susan McGrath who's been helping me terrifically for the last ten years. Tremendously helpful and although our research is not in the same area a wonderful

colleague, Dr. Karen Olness. Then I've had other individuals who have helped a great deal, I'll just mention those then we can move on. I mentioned Dr. Julius Richmond, he was a great help to Marshall Klaus and me many times along the way and he still is. Berry Brazelton; I was a fellow resident with him at Children's Hospital in Boston. Lost track of him a bit until we began to do our research in 1967 and then from then on he has been a tremendous inspiration and supporter. He has gone out of his way to be very supportive and helpful. There are a whole string of people we met through our research and were helpful. I just thought I'd mention Jay Rosenblatt whose psychoanalytic background and wonderful animal behavioral research has been helpful to us and then last but not least, about 1970 I became much more involved with SRCD and was fortunately put on the Governing Council and through connections there many, many individuals their ideas and experiences and support were very helpful. So that's where I am at the moment.

**McGrath: I think maybe there's a section that we'll talk about SRCD where you might want to mention those people more specifically that you got involved with through SRCD. Okay, well I think maybe you were kind of talking about this anyway and that's kind of your primary interests in Child Development at the beginning of your career. You mentioned that you were thinking more and more about your experiences with premature babies and I think maybe would that have been the beginning of your interests in Child Development?**

Kennell: I think my first questions and thoughts about child development were related to full term children and their normal progress. This came from teaching about normal children and taking care of normal children. But I realized that my interest in the children, that much of the focus was in the perinatal period and the first months or years of life and in that period the parents are so crucial that I quite early on was interested in how to help parents with their children and that would fit with the Spock influence on child rearing, his study on Child Rearing. A great deal of it was how to best advise parents to help children with various aspects of their development. So it was an interest in the child but through attempts to influence or advise the parents. Then you are right in mentioning the prematures in this period I mentioned in Boston where parents were totally excluded from the hospital, I mentioned that they could visit newborns and other children two hours a week. The prematures were totally cut off. There was no way parents could get into a premature nursery. Just to go back a ways, when I was in medical school at the University of Rochester, the medical students could never go into the premature nursery, interns could not go into the premature nursery. They were cared for by more senior residents and the faculty. So having a little loosening up of my thoughts about parents in the hospital at the end of my time in Boston and then coming to Cleveland where as part of our medical education program Anna Freud had come to Cleveland and had spoken to the medical students on a couple of occasions. She had been asked by Dr. Wallace about parents in the hospital and she made it clear that parents should be allowed to be in the hospital all the time with their children and Dr. Wallace, it is a great tribute to him, he immediately opened up the hospital to liberal visiting. So with that influence it was, I think, pretty natural to think about discretion with a premature nursery. Now opening a hospital to children in 1952 was not very frightening in terms of threats of infection, which had kept parents out originally, but premature infants still had a very high death rate. The death rate when I was in Boston was terrible in the prematures. I mentioned that I was there during months and months and months of a diarrhea epidemic and that diarrhea infection by some means would get into the premature nursery and there would be enormous losses of babies due to that. So there was great fear and trepidation about infection and books and articles about the care of prematures said that parents must be kept out of the nursery and the leading authority on this was a wonderful person, Dr. Clement Smith. He had a sister in the Cleveland area and when my activities with the head nurse lead us to open our nursery and have parents involved in the care of their babies, when Dr. Smith would come to town every year or two we would make an agreement with the nurses and the parents that they were not to go into the nursery when he was in town. I thought surely I would be exiled from pediatrics if he found out about that! So we saw how well parents did with their babies so that was an area of considerable interest to me and it was the fact that I had not been able to say much about it in England that I was ready to meet with Marshall Klaus and to plan studies related to that when I returned to Cleveland in 1967.

**McGrath: So your research life has really been very active for about 30 years, almost 30 years and in that time I can think of some continuities in your research but what would you say are the major continuities over that span?**

Kennell: I guess the theme is how to help parents in the very early period so that they feel good about themselves and so they'd feel great about their baby and get some inspiration and enthusiasm for their child that carries on through all the challenges and vicissitudes that are bound to come in the lives of children. So Marshall Klaus and I started to look at the effects of bringing parents into the premature nursery. It was while we were doing that, well I got back in the late 60's, that in the late 60's medical students were coming to our school full of enthusiasm about ways to help poor people, ways to help minorities and it happened that a group of them met with Marshall and me many times because they wanted us to go to our newspaper and go to our T.V. and radio stations and say that in our hospital, University Hospital, that they should give the same care to the poor people that they give to the private patients and Dr. Klaus and I at that time had to say the newspapers and T.V. and so forth, they don't care at all what we think about this; but from our discussions we said you know if you do a study and it has some positive effects that might bring about some of the things that you are interested in. So with that group of students we planned a study with full term healthy mothers and babies that I think was, well considering what we knew at the time and the resources available at that time, I think it was well planned and meticulously carried out. So that was the Bonding Study, so-called and I can comment about that later on. That study had positive effects on the behavior of the mothers and we found that wasn't something our obstetric colleagues were very impressed with. They said things like, well you've got some differences, you think they are pretty good, we're not sure they're good, why don't you do something important; that challenge led us to think about breast-feeding, which we'd been interested in. And think about problems with children in developing countries, which we had an interest in also. And through the good fortune of a fellow from Guatemala, Roberto Sosa, who was a fellow in our neonatology unit at that time, he said to us two or three times I believe, why don't you come to Guatemala. I think he said that two or three times before we really heard him and then we began to consider this and in 1973 Marshall and Lois Klaus, Peggy and I went to Guatemala to meet people, talk to people and participate in a neonatology, the first Central American Neonatology meeting. While we were there we found that there was a very important resource in Guatemala and that was INCAP, the Institute of Nutrition of Central America and Panama and from that visit established a tie with Leonardo Mata and Juan Urrutia at INCAP; from that we started on the one hand research that was exciting for us and on the other hand we were getting an opportunity to see other things going on at INCAP and in Guatemala particularly a heavily studied Guatemalan-Indian village of Santa Maria Cauque with a Mayan Indian population in that village. So we proceeded in two hospitals in Guatemala City, two hospitals with enormously large delivery rates to carry out a study of putting mothers and babies together, a randomized trial in which we put the mothers and their babies under a heat panel, skin to skin for 45-minutes in the first hour after delivery and we then had a very excellent follow-up program with Guatemalan research workers who were really tremendous. We had basically 100% follow-up even though these families would be shifted all over Guatemala City and often beyond Guatemala City. Well, so the bonding research lead to the research on breast-feeding and the studies turned out to have a positive influence so in the studies we did and the studies that others did in general the mothers who had early contact had a higher incidence of breast-feeding and a longer duration of breast-feeding. While we were carrying out that study, we then got experiences in the hospital that opened our eyes to yet another area. The area that I am talking about now was related to the circumstances in their hospital. The University Hospital in Guatemala City which is called Roosevelt Hospital and the Social Security Hospital in Guatemala City had practices of excluding all family members from labor and delivery. This was totally different than what went on in the Indian villages but they excluded all family members when the mother came into the hospital to Labor and Delivery.

**McGrath: This was about the mid 70's?**

Kennell: Yes.

**McGrath: When things were very different in U.S. hospitals.**

Kennell: Yes, and what was going on in Roosevelt Hospital, in the University Hospital that had been set up by nurses and doctors from the United States back in the 50's, so it's a reminder of much of what we had in the 1950's in the United States. That had not been changed in Guatemala, they kept the same practices, that's why they were excluding family members. Well, not to go too long on this, the mothers that were in the hospital alone having their first baby in particular were very frightened, very anxious, were crying and crying and crying and to make a long story short, we found that if one of our research workers went and talked to one of those mothers that she would settle down very quickly and would stop crying and would be more peaceful but her labor would continue as it was and the experience with a small number of events lead us to carry out first one and then another larger study, a randomized controlled trial of providing a woman to stay with a mother during her labor. The effects of having that person stay with a mother during her labor were so striking that we did the two studies and then that led us to try that out in the United States. That is that the presence of this woman not only made the labor go along more peacefully and calmly but the mothers had a much more rapid labor, they had need for many fewer interventions. In Guatemala there were better outcomes for the babies and for all it was really almost unbelievable how powerful the effects of this person being with the mother had been. We, during that time, were reading a book, or really a thesis which became a book, by Dana Rafael about breast-feeding and she referred to a person called a doula who helped mothers after the baby was born and she recommended that doulas should be developed to help support and promote breast-feeding. We grabbed at the word and have used that ever since to explain or describe an experienced woman who sticks continuously with a mother during her labor and delivery and provides an array of comfort measures and support during that time. So the continuity is interest in the perinatal period either shortly after delivery and then with the research on the doula, which continues up to the present time, influences during the labor and delivery.

**McGrath: The shifts, I think, any changes in the focus of your work, I think you've just covered that. You know the continuity is certainly, the underlying theme is still there and the shifts have maybe gone, you keep going backwards I guess in terms of time. Earlier and earlier in the development of that new family, so now you are there when the family first begins, something near and dear to my heart as you know. I am going to ask you also, this is a really tough question I think to ask a researcher, I'm going to ask you to critique your research. What do you think has been the strengths of your research and also the any weaknesses? That's an unfair question, isn't it!**

Kennell: I think I have been extremely, extremely fortunate in my research and I can point to two really large discoveries, at least in my eyes they are large and one is that by putting mothers and babies together in that study in the late 60's there was a change in the behavior of the mothers and their baby one month later. Then as we looked at things at one year, there were differences at one year. I think that, I'm going to quote Harriet Rheingold who we talked to about this a few months after we did that study she said something like, "if you can do anything with an adult that will change behavior a few days later, that's really something big and so we had done something just by putting mothers and babies together that changed the behavior of mothers one month later clearly but there were differences still at one year. So that was one discovery, the other was the doula that I just mentioned. Now I think that the strength of our research in the premature nursery and with the bonding studies a number of people have given us credit for opening up premature nurseries and opening up labor and delivery areas for families to be together during labor and delivery and families to be together with their baby after the birth. So I'd say that those two things were extremely important. I think they interconnect and I think that in the future that there is going to be more and more appreciation of the importance of this. It takes a long time to get certain changes and concepts and new ideas accepted but I think there will be much more appreciation of all the things that go on in pregnancy and labor and delivery. I think there is a great deal of animal research and a great deal of human clinical research that fits with the importance of that period. Very exciting studies in animals about hormonal changes in the brain. Oxytocin released centrally and its influence on mothering behavior. A great many animal studies that tie in with the human situation and I think a weakness of our study was one that information about the bonding some how appealed to everybody and so all sorts of solid people supported it but all sorts of people who had different agendas picked up on it and some excessive statements were made about it and we've had to pay heavily for some of that. I think that particularly I'm thinking about SRCD, I'm saddened about one feature, not only personally but you know from its own

concept, there was great enthusiasm among many people in SRCD about the bonding research. Many young people were doing studies that were generally extending or supporting what we had done but then there was a very harsh criticism of our research by a member of SRCD and I want to say it tactfully, but he looked at things with a very different point of view. He somehow came up with numbers and phenomena that were solid principles about statistical methods and about conducting studies and so forth but that did not happen to be true of our study and when his publication came out all others who had done research were equally appalled at the criticism and the implications of that but there was never any reply to our response to that criticism. I'm afraid that criticism turned off a great, great many people who were underway with interests, programs and studies related to this area. I assume that will come along later. Part of that turn off is that research funds have been harder to obtain. We thought one of the great studies that came that was parallel to ours in a sense was a study by Susan O'Connor and colleagues in Nashville where they showed that by giving one group of mothers their babies for six extra hours in the first two days there was a significant reduction in child abuse, neglect, failure to thrive, abandonment and we were very eager to replicate this and that was at the time that the Reagan administration changed and they were opposed to research that seemed to be looking into what families were doing. So that study has never been replicated and I think that the significance of that study in my mind still stands that that's probably telling us that we can reduce problems of that very serious nature by changing our practices in hospitals and the way we get families started. But then within perhaps, I don't know whether I should make it a weakness, let's say a harmful influence has been that those of us in pediatrics who are interested in behavior and psychological aspects of childhood or parenting and child development, we are kind of a weak element in Departments of Pediatrics in spite of all the good things that are said about the general area and so we don't carry as much influence as I wish we did. I guess this is particularly of importance in the obstetric activities and I have to say in our own neonatology activities. While gradually obstetric units let family members and spouses into the labor and delivery area and so forth the overwhelming pressures of technology and the desire to provide interventions and so forth have really squeezed out many of the opportunities that parents had in the 70's and 80's as a result of the developments following that bonding research. I want to be sure to say that while neonatologists were wonderfully accepting of everything that Marshall Klaus and I reported, opened up premature nurseries in very ingenious ways and many have done much better studies than we ever were able to carry out but the influence of technology and so forth in neonatology carries over to babies right after birth. So I have to say both neonatology and obstetrics are so determined to find the one baby in a thousand that might have trouble that the other nine hundred and ninety-nine babies and their parents have a much more stressful, frightening experience than would be desirable for them, that's the area that should be resolved a lot more satisfactorily in the next few years.

**McGrath: So is it accurate to say that, if we can call that a weakness, applies not only to the research with bonding but also with the research on doula support?**

Kennell: Very much and when I was talking about obstetrics I was talking about the opportunities for parents to be with their babies after birth and the opportunities for mothers to get the support during their labor and delivery. This latter was shortly taken care of years ago by nurses staying with the mothers but as obstetrics has become more medical and more interventionist the nurses have been under greater pressure to be doing all sorts of other things than staying with the mother. So there is a much greater need for a doula now than a few years ago.

**McGrath: In a more specific kind of question, what would you say are your most important or most representative publications?**

Kennell: Okay, the article in 1982 in the New England Journal about that study in which mothers in one group were given an opportunity to be with their baby for an hour in privacy in the first three hours of life and then five extra hours the first three days. That study I would say was one I would like to mention. I would mention a paper that was 1970 in the New England Journal about the mourning reactions of parents after the death of a newborn. That has had a great deal of influence and that was, it's surprising to say but I think that was about the first article about parental reactions to a death since the book Little Women was written in the 19<sup>th</sup> century. There had been a big gap in that area. Then our books, Maternal Infant Bonding in 1976 and Parent Infant Bonding in 1982 put down our thoughts and ideas about these areas in

the early hours and their importance for mother, father and baby in a way that is I think clearer than in individual papers. Then in the paper in 1980 in the New England Journal about the doula, that paper and then a paper with Marshall Klaus and Susan McGrath and Steve Robertson and Clark Hinkley who was the director of Obstetrics at Jefferson-Davis Hospital in Houston Texas who allowed us to carry on a study of doulas. That paper which showed that in the United States with modern obstetrics that there was a very powerful effect of the continuous emotional support of a doula during labor on the need for epidural analgesia, the need for interventions, the need for cesarean sections and forceps deliveries and that there was even an influence on the children, in spite of the marvelous neonatology care provided in that hospital, that the babies in the families where the mother did not have random assignment to have a doula, that those babies had longer hospital stays because of the mother's fever. I think that paper is very significant and we've written about that in more detail in the book we called Mothering the Mother.

**McGrath: Do you know the copyright date on Mothering the Mother?**

Kennell: I think "Mothering the Mother" was 1993. I guess it was just one article on which Dr. Dennis Drotar was the lead author, but it was Helping Parents after the Birth of a Baby with a Malformation. I'm mentioning these because they tie in with my heavy pediatric clinical experience and they also were related to trying to define a little bit better about how to help parents get started with their babies.

**McGrath: Do you know the approximate date of the paper with Dr. Drotar?**

Kennell: 1975.

**McGrath: One more question in the area of research and that is your experiences with research funding. Have you had any participation related to funding policy, such as study sections, anything you'd like to comment on about obtaining funding for your own work. Grants are always a big issue with researchers.**

Kennell: This is an enormous area, I think I must be very humble about the fact I was very fortunate to obtain funding but I don't know that I have influenced funding. I guess I could just say that due to the medical school's small grants to help people get started, Marshall Klaus and I got going on some of our premature studies thanks to that. Then we had funding from other groups that were terribly important along the way, the Grant Foundation, the William T. Grant Foundation was very helpful and actually we were helped through the SRCD to get that grant. Dr. Julius Richmond, I think, helped us contact the Director of the Grant Foundation at the SRCD, and at SRCD meetings we would meet with that person. There was a fund that was so supportive that it actually used up its financial resources to help us, I think it was called something like The Research Foundation and the Grant Foundation funds were very helpful to us in filling in needed areas for our efforts in Guatemala. When that research fund was running out they (Kendall King, the Director of The Research Foundation) were so gracious that they arranged for the Thrasher Foundation to give us some funding. For our work on part of this the Maternal and Child Health Bureau was particularly helpful. Then we did try several times before we had NIH funding but the study in Houston (it was approximately ten years ago that we started that) was from the National Institute of Child Health and Human Development and I'm just tremendously indebted to them for the support for that study. Then a five year study in Cleveland looking at the support of a doula for couples and currently a randomized trial in Houston where one group is having a doula, another group of mothers is having epidural analgesia and another group is having routine care, but that's gotten away from my shaping any research funding policy. I have been mainly at study sessions of the National Institute for Alcohol and Drugs and so forth, and I think my opportunities to go to Washington for study section activity certainly gave me better ideas of how to prepare a grant and also helped me to become acquainted with people that I can consult about questions that came up in preparing a grant. I have been very fortunate to date. I am in the midst of a study right now even though I was probably 70-years-old when I started with that grant.

**McGrath: Yes, but you've got more energy than a lot of 35-year-olds, Dr. Kennell, so it's okay!**

[Tape stopped]

**This is the third session of an interview with Dr. John Kennell for SRCD and today is Monday, February 13<sup>th</sup>. We are going to start out with some questions about your work history Dr. Kennell. If you could go over the institutions in which you have worked and as best as you remember the dates where you worked there and in what capacity have you worked in those places.**

Kennell: I believe my answer will be shorter than for many. I had my medical school training at the University of Rochester. I graduated in March of 1946. I started then as an intern at the Children's Hospital in Boston. I was away from the internship for a couple months at the Bakini Bomb tests, obviously right after World War II. Then I went until the end of June 1947 when I went into the Navy and I worked at Chelsea Naval Hospital for almost a year and then for more than a year I was in Norfolk and responsible for the large dependents service that they had, as I recall something like 35,000, so it was a very busy experience but then I returned to the Children's Hospital as a Senior Resident, as a Chief Resident in the Outpatient Department for six months and then in 1951 I was Chief Resident for the Medical Service for the whole year.

**McGrath: This is Children's Hospital in Boston.**

Kennell: Children's Hospital in Boston, thank you. Then starting in 1952 I had an appointment as assistant to the Chairman of the Department of Pediatrics and responsibility for the Outpatient Department and I was in that position until August when I then moved to Cleveland to what was then Western Reserve University School of Medicine and the hospital associated with that was called Babies and Children's Hospital. I started there the end of August 1952 and although the university's name has changed to Case Western Reserve University and the hospital has become Rainbow Babies and Children's Hospital, I've continued there from 1952 up till the present which is February, 1995. At Western Reserve University I was, I guess, a senior instructor and then an assistant professor, then associate professor and I've been a professor for a great many year, forgetting precisely, probably professor sometime in the 1970's and I've been Emeritus Professor probably for two or three years. I think I've said something about my activities but when I first started I was put in charge of the newborn service and the premature nursery. I was in a few weeks brought into the medical education program, a program I referred to in which each of the medical students was assigned a woman in the last trimester of pregnancy and the medical students followed the mother for her prenatal visits in the maternity hospital, then were present during labor and delivery and then they provided care for the baby for the rest of their four school years. Back in the 50's the medical students took over the care of the other siblings, took over the care of the mother and the father and that continued probably until about 1968 when the program was trimmed back quite a bit. So since roughly that time the students follow the baby for the first two years. So that was an enterprise, an education enterprise that I worked in the pediatric family clinic setting that up and organizing that and working very closely with the students until 1960's when I was asked to take over responsibility for a hospital that was a rehabilitation hospital, actually it was called Rainbow Hospital, and to begin to have more responsibility for the general pediatric clinic. Then starting approximately in 1970 I've been successful enough with research so that my administrative responsibilities for the clinic had been reduced greatly, my responsibilities for the newborn and premature nurseries had been turned over to Dr. Klaus in 1967 so I was, from that time on, very much involved with the work as a preceptor for the medical students in the first two years. I was involved much with students on research projects and I'll say that we have had medical students working with us every year since 1967 and there were many years prior to that that medical students were working with us. I was active in the department as a visitant and in a number of capacities also but the very, very demanding clinical responsibilities of running the pediatric clinic or running the pediatric medical education family clinic and running a newborn service I was removed from the direct leadership and that was a great help to me with my research.

**McGrath: In terms of working with students, medical students and teaching them how to do child development research, did you do that in a structured way? Did you teach courses in that and give lectures or was it in a more less structured kind of meetings with students or what style did that take?**

Kennell: In the medical school there is so much pressure to find time for different topics that it's difficult to have a time when you talk to the whole class. Either my colleague, Marshall Klaus or I usually gave one or two talks to the medical students, whole class exercises in their first year telling about our research which directly related to what the students were doing, the importance of mother and baby being together after birth for example. We also had some years in which there were several lectures for example on the effects of death on the survivors as one example. My opportunities to talk to a whole class was limited to that. In the third year the medical students go through the pediatric department and I usually had one or two talks that I gave for each group of medical students. I particularly talked about separation reactions, preparing children for procedures, supporting parents to support their child in those talks. Now to come back to your question, the experience with students on research started back, well actually 1952 onwards in that the medical school until 1968 required medical students to participate in research and to write up that research so that was a, from my point of view, that was a very, very profitable experience because students entering that with the idea that they were going to be required to come to a conclusion on their research efforts, whether that was a publication or a presentation or a written thesis, lead to a continued relation with that student throughout the four years, that was wonderful. After that was dropped in 1968 there still were each year student who were very interested in participating in research. What we usually did with that was to meet with a group of students who showed an interest, usually after the whole class exercise in the first year, telling them about what we were doing and partly seeing what interested them and partly suggesting areas they might have an interest in pursuing. It usually turned out that quite a large number would start and as you went along with the more detailed, more tedious aspects of planning the research that there'd be some who would see this was not for them. But usually there were students and some years several students who wanted to work together on a research project and we had several years where we were doing research in Guatemala and students were very important in that research, just as they had been very, very important in all of the research that I had been involved with. The students back in the 50's had two afternoons a week as I recall that were for research and another after that was a free afternoon so we had quite a bit of time with the students then. That's been encroached upon but most students still in our university medical school have one or two afternoons a week that they have no definite commitments so they can work on planning research during the school year. They also, in our school, could have elective periods on research and they could do planning in that time period. Then until the last few years, the summer after the first year and the summer after the second year, was a period when student could really go full time on research. Fortunately in our medical school there were usually funds that made it possible for student to receive a stipend that was enough to make it reasonable for them to spend the summer on that research. A number of changes have occurred, the educational program has shifted in a way that has pretty much eliminated the second summer, most of the students want to get right into their clinical work as soon as they finish their big examinations and the other development in the last three or four years has been the requirement that all students take a national board examination at the end of the second year. This in our whole medical school has tended to make students much more concerned about grades and passing examinations than was the case before and this has significantly cut into the students who are willing and able to participate in research. But this working with the students as colleagues in research and proceeding from planning to carrying out a study and analysis and presentation that's been a very rewarding experience. In response to your question, there has not been a definite course in research training so most of what the students have learned has been related to their specific area of research and some have continued in that area, others have gone on to other areas of research but that's been a very rewarding experience for me. The area of research that Dr. Klaus and I have been involved with has interested residents in pediatrics but they have usually not chosen that as an area of research and fellows in neonatology when we were both very active in running the neonatal service, their interest in this research has diminished as more technological areas and different venues of research have been available for them. So we have not had as much experience with fellows in the last few years as I would have liked but I must mention that there have been several fellows over the years who did research. Two did outstanding research related to breast-feeding which directly related to our research interest. One fellow was very crucial in our doula research in helping us set up a research project in Tampa, Florida. That project was unsuccessful but it was unrelated to that fellow's efforts it was just due to the hospital and medical school not being supportive of our research efforts.

**McGrath: That brings up the next question which relates to putting the theories that you have worked on in research into applied use. I know from my work with you how difficult sometimes that can be, to take the things that you have learned through your studies and put them into practice in a wide spread way and I wondered if you might say a few words about the good things and the negatives I guess about putting theory into practice.**

Kennell: That touches on an important area. From my observations, over and over again, people who go into pediatrics whether they are focused on research or clinical care they read every study, they take everything they learn and want to apply it immediately so at every conference the question that's very appropriate for a pediatrician is how soon are you going to apply this new treatment or this new approach to the care of your patients and with many things at pediatric research meetings it is as soon as they get back home and sometimes you phone home to tell people to stop doing something or to change something because of something you've just learned at the meeting. Because I have had the very great fortune to be at a good many meetings with developmental psychologists, I know that is not the main focus and at a meeting where there are pediatricians and developmental psychologists, if you ask for the application I think the pediatricians can be counted on to come up with an application and the developmental psychologists being more thoughtful and needing to consider all angles more carefully often will not come up with a direct application. Now Marshall Klaus and I started out looking at bringing parents into the premature nursery, that research was very difficult, it was not as definitive as the research with the full term babies but we were able to immediately apply that in our own nursery and we were able to publicize that so that neonatologists throughout the country, very quickly put some of the things that we had written about and studied into practice. One area of research related to our so called bonding study was to do a study of parents who had lost a baby and from that we had a paper about the mourning reactions of parents after the loss of a newborn. Well, by publishing that, by talking about that at perinatal meetings and so forth that soon became part of the practice in neonatal units and almost all of the things that Dr. Klaus and I had studied were put into practice in units and when we'd visit them we'd often be surprised to see how much had been put into practice. Now when I came to the study of full term babies, the study that showed differences in the group of mothers who had early contact and extended contact in the first three days that involved not pediatricians so much as obstetricians. A number of pediatricians very enthusiastically were able to change hospital practices or to convince the obstetricians to change their routines. But for most institutions the care of the mother and the baby and the newborn nursery, the practice in newborn nurseries were very much under the influence of the obstetricians so to give an idea of how difficult this was in our own institution where we carried out the study that we were basing our actions on, the obstetrician said, as I may have said earlier that you found these differences in this group of mothers and you think that's good and we don't know whether that's good or bad, why don't you do something and why don't you look at breast-feeding. So that spurred us on to go to Guatemala. Well, we really came down to a threat with determination of carrying it through or resigning if they would not establish the situation that would make it possible for mothers to have their babies early and for mothers and fathers to have time with their baby in the first hour after birth. Fortunately that ended up with their willingness to let us proceed with that practice but I think in general it was necessary for some external pressure to be applied for that to become a nationwide phenomenon. Our many, many opportunities to speak about our research certainly was helpful. We very frequently were invited to a community where the, well it could be the pediatricians didn't want to put mothers and babies together or the obstetricians or the nursing staff, and when we would go to a community and talk about the bonding research usually all parties were present and very frequently after a presentation and discussion the service would change and they would allow that to occur. But the real force that brought about the application of opportunities for parents to be with their baby after birth and to really make it a family affair or social event and an important emotional event for the mother, father and baby came about by the pressure that childbirth educators were able to provide by telling their classes of parent, now these were usually classes in the community, telling the parents that there were many opportunities and many different ways that they could go through the labor and delivery experience and in a larger community they would say that if you want lots of anesthesia, if you don't want to feel any pain you can go to this group of obstetricians or you can go to this particular hospital because they're very strong in that area. If a mother wanted natural childbirth and that was of course very popular in the 70's and 80's, if you wanted natural childbirth there are these obstetricians or these midwives and this hospital or that hospital they could provide that for you and so parents began to insist on certain requirements for

their labor and delivery and obstetricians and hospitals to keep up with this pressure would shift their practices. Now as we move ahead to the doula that's been impressively low in certain respects. Thanks to the research results and thanks to the efforts of many doulas there now is a national organization, Doulas of North America (DONA) that has moved ahead very rapidly with recruiting members with setting up training programs, establishing standards and there are now throughout the country a great many women that are well trained and well prepared to serve as continuous, supportive companions during labor. But the uptake by the obstetrical services has been generally quite slow and the interest in this has sort of been outstanding in its lack of responsive enthusiastic uptake on the part of the obstetricians. At this very same time that the doula studies were going on there were all sorts of other changes in obstetrics and there were many more interventions, there was great enthusiasm for what's called the active management of labor which was the practice established in Dublin Ireland and it had three components. It had a supportive woman who stayed with the mother through her entire labor and delivery, that was usually a student midwife and it had an element of rupturing membranes and giving a solution known as Pitocin which is a synthetic oxytocin medication and the enthusiasm for that with the idea of making labor shorter and more predictable has caught the enthusiasm of obstetricians throughout the country and they have been more focused on that then they have been on the supportive companion. Now what's happened throughout the country is they rupture membranes and they give Pitocin but they forget about this supportive companion. I think at this time that I should say that there are a number of hospitals and a number of insurance plans that are providing support for doulas, but it will probably require Managed Care to appreciate the great importance of the supportive companion in reducing medical expenses for events such as cesarean section and for long labors and other expensive items that I think will lead to financial support as well as morale support for the much greater use of these doulas. That's a long answer to your question but you can see a lot of time and effort with each of our research studies has been related to trying to put it into practice.

**[Tape stopped]**

**McGrath: Okay, this is another installment, I think the fourth installment of an interview with Dr. John Kennel for SRCD. Today is Tuesday, February 14, 1995, so Happy Valentine's Day! Dr. Kennel I guess today I would like to start by asking you about your experiences with the Society for Research in Child Development. When did you join SRCD?**

Kennell: The precise date that I joined SRCD I'm not certain. I went to the biennial meeting in Minneapolis probably in the late 1960's or 1970 and that was a wonderful experience. I was greatly excited by all of the impressive people that I met many of whom I had known from their writings but had not met previously. The part of it that was mostly exciting to me was all the young people who were enthusiastically working on all sort of issues that had been in my head as a practicing pediatrician. So the members of the Society, the developmental psychologists who were in graduate training and were presenting at the meeting and the very atmosphere of the meeting was very stimulating and I remember asking Julius Richmond who either was the president or had just been the president for an application blank and I believe he signed it for me and from then on I have been an enthusiastic member. I was treated very well by everyone there and was involved in some of the activities and in 1977 to 1982 I was on the Governing Council. That was a very stimulating experience also and during part of that time I was the Chairman of the Interdisciplinary Affairs Committee and was on the Program Committee for two programs. I was impressed how gracious all the members were to me as a pediatrician and how willing they were to make changes. When I came to the program, first of all, I had been so impressed with the meetings but when I was on the Program Committee I had some ideas that were quite different and have to give great credit to the other members of the committee for being willing to listen to my ideas and to make changes. Many of these changes were based on my experiences in the Pediatric Research Societies. One of the innovations that I hoped for was a list of the abstracts so that members could take back, for those who didn't attend the meeting, could take back a summary of the presentations. The members agreed to that, there were several other changes that came about during that period.

**McGrath: What a great thing to suggest, I didn't realize that it hadn't been in existence at that point.**

Kennell: Well, it's a difference between the Pediatrics Society and the Society for Research in Child Development was impressive to me. There was in the Pediatrics Society all submitted abstracts or published because there is always the memory of great, great discoveries being not accepted for presentation at meetings and then discovered later. But the sensitivity of the members of the SRCD was impressive that people did not think it was reasonable to put in abstracts if people had the embarrassing part of not having their presentation selected at the meeting. So I'm not saying it well but my times with the SRCD were glorious ones. This was at a time when Marshall Klaus and I were in our earliest studies relating to bonding and there was so much that we learned at every one of those meetings that we could apply to our theoretical concepts about bonding that it was very rewarding. I mentioned earlier that there was a harsh criticism of our research and from that time on there were many, many fewer individuals who were beginning to do any research related to our studies and so from that time on most of the aspects of the meetings were to learn about various research by the members but particularly to keep up with the animal research and to keep up with the exciting studies of the sensory abilities and the motor abilities of infants.

**McGrath: So maybe areas that you were interested with but it wasn't your direct worry. Can you comment on any important changes that have occurred in SRCD during the time you've been associated with it?**

Kennell: Well, my joining the SRCD led me to review the history of SRCD and to realize that pediatricians had been very significant members in terms of numbers and contributions in the early years. By the time I joined which I'll say was about 1970, the membership was heavily developmental psychologists and that trend continued so when I was either on a Program Committee or on the Interdisciplinary Affairs Committee or on the Governing Council I was involved with discussions and I believe the decision to alternate the Presidency of the SRCD between a developmental psychologist for one biennial period and then with a non-developmental psychologist for the alternate biennial period. At least for me as a minority member or a minority group, that is a pediatrician in SRCD, that has been appealing. I don't know how all developmental psychologists feel about that but I think that's appealed to many of my physician friends in SRCD.

**McGrath: Any other comments about SRCD, the changes you've seen the things that have happened in your time with the organization?**

Kennell: I've known so many people that were so friendly and so impressive to me that it is difficult to sort them out but because my work with bonding certainly in my concept ties in with attachment I was fortunate to be on the Governing Council and in one or two of these other positions during Mary Ainsworth's presidency and I particularly appreciated the opportunities that I had to talk with her and learn about her ideas, and the difficulties that came in terms of a criticism of our study occurred at the same time to Mary Ainsworth by the same individual. I must say it was very comforting to have her to share experiences with. I'd say that the period that I was on the Governing Council there were many issues, I got caught up in the very appropriate efforts to pass the legislation in each state for a constitutional amendment about women's rights and went through the period when it looked like that was going to go through in great style. Then the period when there was the terrible disappointment that that did not go through and we had a year or two where we did not have our meeting in certain states because they had not passed that legislation. I believe that now may not be as much of an issue as it was then, but the problem lingers on.

**McGrath: Okay I am going to ask you to shift your focus again, we've gone to the specific, now I'd like you to go to even more general and comment on the history of the field of Child Development. Some of the things that you see that have been maybe important all along during the time that you have been involved in Child Development and maybe some of the things that have risen and fallen in importance over that time.**

Kennell: That is a big order.

**McGrath: A big question, isn't it?**

Kennell: I am going to speak now particularly as a pediatrician, I'm a product of the period before Spock when there were terribly rigid thoughts about raising children and handling feeding and toilet training and so forth. The Children's Bureau Publications and the leading psychologists of the teens and the 20's and the 30's demonstrate this. Then there was the period of Spock's real liberation of parents and of children from these rigid restrictions. Then what was exciting at the time I joined SRCD was the putting all sorts of child rearing practices and recommendations to careful research study. So that we went from Spock's genius at sorting out the problems and solutions to testing those principles rigorously so that as a pediatrician concerned with child rearing there now are many, many more very sound principles and studies on which to base recommendations and many of Spock's principles were challenged. My colleague Betsy Lozoff had overseas, cross-cultural experience with sleeping habits and was quite sure that those practices could be applied in the United States with the elimination of sleep problems and so forth. I don't want to make it sound like she was blind to this but that was her hypothesis at least. When she tested that in studies in Cleveland she found that actually what Dr. Spock had recommended did seem to be in general the best way for parents in the United States in the latter half of the 20<sup>th</sup> century to manage their young infants. Now, the question about whether the importance of various issues has changed over the years. Well, they certainly have, as more evidence has become apparent, and I'm very much enthusiastic about the studies of attachment, the importance of the Ainsworth Strange Situation and all the studies that have been carried out by colleagues and successors to Mary Ainsworth. The rigors of research by developmental psychologists are so important that I would hope that more of the issues that are plaguing our country and are challenging pediatricians today could be studied by developmental psychologists. I think one area of enormous importance is the issue of children being removed from homes, being placed in foster care, being placed in adoptive care, being moved around and around and then with subsequent enormous problems of their relationships with others and often their relationship with the law. What I am mentioning would do well to draw on the skills of developmental psychologists to organize and conduct a study with a long view in the tradition of those long term studies of normal children which are very important, those studies should be continued but to try to sample the population so that the many, many unfortunate children, not only of common events such as divorce but of parents who give up their baby and this issue of whether the baby should go back to the biologic or the adoptive parents, many issues of that sort and then the long term effects of those early events and this is a place where pediatricians teaming up with developmental psychologists could probably provide answers of great value. I'm saying this today, the Supreme Court was just asked about returning an older child to the biologic father with whom the child had had no experience and that reverted back to the state and it's going to go to the biologic father. There have been plenty of people such as Anna Freud and Al Solnit in "In the Best Interests of the Child" who passed judgment on that a long time ago but it would seem that more studies were needed to convince lawyers, legislators and courts, and everyone connected with the law, about what really is sound for the future of children. My hopes and fears for the future of the field of Child Development is to continue the excellent research and theoretical consideration to bring it more and more, if I may say so, into the real world problems and then in the area that Marshall Klaus and I have spent so much time with. I hope there will be much more interest and many more studies of the long term effects of perinatal events and studies that would, I know this is narrowness related to my own interests, but studies that would look at populations that have different beginnings in the perinatal period and then is followed for a long enough period so there can be Ainsworth's Strange Situation testing at a year and similar testing through the first few years of life to see if there is not really a very significant tie between parent-infant bonding, the way parents relate to their baby in the early months of life and how the infant develops an attachment to the parent and how the infant weathers the various normal developmental steps of the first few years and the vicissitudes that occur in those first years. So it seems to me that in 1995 there are many more questions than I thought of when I started in this field and much need, much pressing need for answers to these overwhelming real life situations that are occurring, it seems, more and more frequently so that we could be a source of wisdom and recommendations to all who would be involved with managing these situations. I'm not going to go into the many issues, all of the children in places like Bosnia and Rawanda and so forth, all of the many situations that come up with deaths and disasters and diseases and so forth in parents and what happens to the children as they progress. Then there are so many questions about the factors in violence and these other enormously important issues, which we seem to be unable to change at the present time. So my hopes are for the field to continue to grow and develop, to keep focusing on the normal child but then to either directly or with alliances perhaps to pediatrics and social work and some other fields to

really see what we can do to help children get through events that seem almost impossible for children to survive but we know that there are children who are vulnerable but invincible and maybe we can find ways to have more children become invincible to these vicissitudes.

**McGrath: Is there anything else that you would like to say on that note? Okay then I am going to turn you to one final topic and that's your own personal interests and your family. Particularly if there is a way that they have had an impact on your scientific interests and contributions?**

Kennell: Well, first of all my wife Peggy and my children have been very supportive and tolerant of their often absent and often busy father. Certainly my wife's wonderful care of our children and our children's responsiveness raised many questions about normal development for me. Probably my wife's having our first son for example at a time when not only the father couldn't be present during labor and delivery but no doctor could even go to the labor and delivery floor where our baby was born. My wife's disappointment that she did not have a chance to do any of the things that I have been advocating for the last few years has certainly inspired me and when my one biologic grandchild was born ten years ago my wife and I arranged for our daughter to have a doula so that she took part in things I was interested in and my children have gone along with their father in a lot of my research and teaching activities, my wife has also so they have been very helpful. I don't know whether that's the answer to this question. My wife's willingness to let me keep active in some of these areas even though with a bit of reluctance after I reached retirement age has been great for me anyway to be able to continue.

**McGrath: Okay, now is there anything else after all of these questions that you would like to have for posterity that I haven't asked about?**

Kennell: I think right at the moment posterity might have to wait but maybe I'll have a chance to add something later.

**McGrath: Okay, sounds great and thank you very much.**