

Sandra Scarr

- Born 08/08/1936 in Washington, DC
- Spouse - Harry Scarr (divorced in 1972), Philip Salapatek
- Ph.D. and A.M. from Harvard University (1965 and 1963); A.B. from Vassar College (1958)

Major Employment:

- NIMH Laboratory of Socio-Environmental Studies - 1959-1960, Research Assistant
- University of Minnesota - 1971-1977, Psychology
- Yale University - 1977-1983, Psychology
- University of Virginia - 1984-1996, Psychology

Major Areas of Work:

- Behavioral Genetics, Study of Identical/Fraternal Twins, Daycare

SRCD Affiliation:

- Editorial Board Involvement: Child Development (1974-1976), Monographs of the SRCD (1973); Governing Council Member (1977-1983); President (1989-1991)



SRCD ORAL HISTORY INTERVIEW

Sandra Scarr

Interviewed by Rich Weinberg
In Montgomery, Alabama
June 21, 1996

Weinberg: Hello, this is Rich Weinberg, Director of the Institute of Child Development at the University of Minnesota, and it's going to be my pleasure to gather the Oral History of Sandra Scarr who has served as President of SRCD. We're in her home in Montgomery, Alabama where she is currently the CEO of KinderCare Incorporated, Sandra?

Scarr: Chairman and CEO, KinderCare Learning Centers, Incorporated.

Weinberg: Okay. And while we're getting started here, Sandra, in fact, is watering her plants. And I think we'll find when we get into some of her personal interests that that is one of the continuities over many years in her life. We're in an environment where we are surrounded by magnificent plants that Sandra has tended in the same way that she's tended to so many other things in her life. Good morning Sandy.

Scarr: Good morning.

Weinberg: We're going to begin by reflecting back a bit on your general intellectual history. I wonder if you could reflect a bit about your own family background, you know, in particular any childhood or adolescent experiences that might be of interest. And I guess to the extent that you'd like to consider the educational and occupational characteristics of

your own parents. That would be sort of helpful. Maybe to get started on that you could just talk a bit about where you were born and grew up, and a little bit about your own schooling and early work experience as you reflect on those early years?

Scarr: Well I was born in Washington D.C., which is unusual in and of itself as very few people are born in D.C., and my father was in medical research, he was a physician in the Army medical corp. So I grew up in the military, but a rather unusual version of it because we didn't move all over the world or even all over the country, we stayed pretty much on the east coast and particularly in the Washington/Baltimore area. So in my very early childhood, and I don't remember this very much, we moved to Teaneck, New Jersey when I was about three because my father was finishing a Master's Degree at Columbia in Biochemistry to add to his M.D. And then we went for about six months, I am told, though I hardly remember it at all, to Ford Benjamin Harrison in Indiana. But what I really remember is growing up at Edgewood Arsenal, north of Baltimore in Maryland, which was the major Army chemical warfare post. And from the time I was six until I was fourteen we lived in this rather idyllic base where we had housing right on the Chesapeake Bay, so my front yard was the Chesapeake Bay. And my sister and I, my sister's two year's nine months younger than I, but we had rowboats and a sandy beach and lots of rocks to run along and lots of animals and woods to run through and build tree houses, and we were very free on that Army post. And then of course I have lots of memories of just being a kind of rough and tumble kid, of running around barefoot and riding bikes wherever I wanted and having friends who were as undisciplined as I was. I don't think we were undisciplined in school but we were very much freer than most children are today.

Weinberg: You mentioned your sister; you still obviously have contact with her?

Scarr: Oh, I'm very close to my sister, yes. She lives in New Jersey, but we see each other and talk on the phone and keep track and so forth. But I think that my parents were very reasonable with me. I've always thought that was when I've heard other people talking about their childhoods I've always felt that my parents were very supportive. And when I say reasonable I mean that everything was discussed in the family so that you could take a position or make a request. And if you could defend it and reason about it and explain it, you probably could have what you wanted. So there was a great payoff for being reasonable, or as Marcie Guddemi said yesterday, use your words for whatever you wanted if you could make a good argument for it.

Weinberg: To what extent how did that influence and carry over in terms of your own rearing of your children, which we'll get to later on?

Scarr: Well I hope I've done the same. I hope that--

Weinberg: So you had a good model?

Scarr: --I've always been a listener. I listen to what my children wanted and why and discussed and negotiated. I think it was also my father was especially involved with my sister and me in our interests and hobbies, whereas mother was more the caregiver. He was the more interested person, in that he did lots of things with us. I mean I used to do chemistry with my father in the basement and because he was--

Weinberg: No blowups right?

Scarr: I did. I set the basement on fire several times, right? He was tolerant about that. I mean I didn't really burn the house down ever, but - And we all built a rowboat together, my sister and my father. We got a kit, if I remember from Sears, and put this rowboat together and I mean we literally built it and sanded it and caulked it and painted it and launched it. So it was really a kind of project.

Weinberg: How old were you then when you worked on that?

Scarr: I would say I was nine, ten, you know and my sister was probably six, seven. And it was just there was that kind of thing. And we used to take family trips where there was great interest in showing us historical things and the wonders of the West and all sorts of travel; we did a lot of car travel in the United States, extensive trips. And my sister had a great interest in birds and ornithology and my father would take her out and go bird watching with her and of course living on the Chesapeake Bay there were lots of birds to watch. So there was a lot of involvement, interest, and I think both our parents made a point of what we were interested in, which is I think something that I really have valued in growing up and my sister did too. I think our mother was much more interested in our social accomplishments and father was more interested in our intellectual accomplishments. That's okay.

Weinberg: You've had a, I know, a lifelong interest in travel yourself and I'm assuming that was catapulted from those early years in terms of having enjoyable times with your family and travels. Is that a fair representation?

Scarr: Yes. I think also that the kind of fearlessness that comes from saying I like to see new things, I like to experience new things; I enjoy and feel confident that I can manage and negotiate this, whatever it is. And so, you know, I think it's easier to enjoy then, traveling and trying to understand how other people see things and do things.

Weinberg: In that context you, of course, began your schooling. Can you talk a little bit about those early school years?

Scarr: Well, I started school in a school that was an elementary school on the base that was just Army children. But I don't know, I think it was maybe in the second or third grade we went to the local Edgewood Elementary School. But when I got to fifth grade my parents started to worry a lot about my 'real education' if you will. And a lot of the officers who lived on the base had children about my age, and I was about eleven, twelve or something, and they decided to send us to school in Baltimore. And I went for two years before we moved to Washington: I went to the Bryn Mawr School for Girls in Baltimore.

Weinberg: It was a private school?

Scarr: Yes. The Bryn Mawr School's a very good girls' school in Baltimore. And I think it was entirely educational decision, they really felt that the Hartford County Schools were not sufficiently challenging. So every morning I rode the bus into Baltimore, which was only forty miles but it was a slow highway. And if I recall we had to leave the house at seven o'clock in the morning or thereabouts and we didn't get home until almost seven o'clock at night, because there were six or seven kids who were taken into junior high and high school in Baltimore and they went to different schools, so some when to the Calvert School, some went to Gonzaga, some went to one of the boys schools, Gilman Boys School, and we were sent so we had to be taken in this Army trailer - it was kind of like a Humvee, it was really an Army vehicle like

Weinberg: Here come the Army brats.

Scarr: Here come the Army brats right into Baltimore. We had a kind of Lord of the Flies culture on the bus, you know. There was no adult supervision. The driver was busy. And I know that another girl who went to Bryn Mawr and I used to have to make spitballs for the boys so that they could launch them out of the windows of the van at passing cars.

Weinberg: 50 you were a rebel-rouser then too?

Scarr: No, I was enslaved to make these spitballs or else they were going to do something harmful.

Weinberg: Do you recall much from that early schooling just in terms of what sort of significance that had on your own development?

Scarr: Well, I knew when I went to Bryn Mawr I realized that education was a very serious business. My mother was shocked to find out that I - they considered me quite far behind in many subjects, but of course I hadn't had French since the fourth grade as the children there had, and I was behind in math, so I think I was tutored for a couple of months to catch up, but then I did fine. I did very well.

Weinberg: That's a big surprise, but go ahead.

Scarr: What I remember at Bryn Mawr was that athletics were very important and that was wonderful, because athletics were--really physical education more than athletics really were part of everyday school life. We were taught good physical conditioning and relaxation. To this day I remember lying on the gym floor in seventh grade and having Ms. Sinclair, who is very British and very P.E., come around and, you know, we had to go limp from the head down and she's come around and pick up your wrist to make sure it was really limp or move your leg and it was - they taught you useful things like how to relax. Of course we learned how to play tennis and we learned how to play field hockey and how to play basketball and how to play softball and all, but every girl participated every single day in athletics, because it was part of your general education. And I think that it's so sad that that's been lost in American education and my children were so cheated not having that in public school.

Weinberg: Sort of viewed as being extraneous at this point in time given the financial situation of course.

Scarr: And of course we had a very long school day because athletics had to be part of it and they weren't going to scrimp on anything else. So if I recall we started school at eight o'clock and we didn't get out until four thirty. And that was the kind of day that included athletics and included after-school programs. We had clubs and it was a very rich school environment.

Weinberg: So kind of moving along then into high school, what was the kind of educational evolution then for yourself?

Scarr: Then I went to the National Cathedral School for Girls in Washington, which was not as strict as Bryn Mawr. It was a girl's school, but we didn't wear uniforms, I didn't say at Bryn Mawr we wore uniforms. I think educationally it was very good, it just wasn't quite as severe a school, or as serious a school as Bryn Mawr was. But I did very well at Cathedral School and I feel I got a very good education.

Weinberg: That had a religious base, that school?

Scarr: It was an Episcopal school; it is attached to the Washington National Cathedral.

Weinberg: Right.

Scarr: Yes, we went to a chapel on Fridays and we had opening prayer ceremony every morning in assembly, first thing in the morning the whole school assembled. It wasn't I suppose doctrinaire kind of religious philosophy, Episcopalians are fairly broad-minded, but we studied the bible. I always felt that I had a fairly intellectual religious education as supposed to anything that was enslaving.

Weinberg: Okay. And during those high school years, had boys started entering your life at that time?

Scarr: Yes. Oh, yes I had boyfriends. You know, we had a good time. The boys school, St. Albans was next door and we had very few, but a few joint activities, and some of them were like a current events club, history club, I don't remember, I know I was involved in those. And there were dances to which we were invited and then we had dances and invited the boys, it was really looking back on it a pretty amusing kind of social life, but we mostly were very busy with school.

Weinberg: I'm sort of wondering though, in retrospect as you look back, you know what are your opinions today of gender segregated schooling for young women?

Scarr: I think it's a very good idea. I feel that having gone through women's education from the seventh grade all the way through college, we haven't got there yet, but I went to Vassar as an undergraduate. I think it had two effects, I mean one was a very positive one in making me feel I could do anything that I guess I never felt competitive with men because I didn't ever compete with men. I felt that there was every opportunity for me to be the best I could be, and I was not squashed in any way. I think the negative effect is I think I didn't get a very good view of the real world because, of course, the real world does contain men and women, and I don't think I had a very good idea about relationships with men and what my achievements and aspirations would mean.

Weinberg: In terms of your achievements, obviously you reached some point in your schooling where you discover or confirm that you're talented and you really have the "potential" to go on and to go to as you mention to a school like Vassar. When did that sort of settle in for you, when did you kind of know that - I don't want to say destined for greatness.

Scarr: No.

Weinberg: --but that the potential was there to go on to a prestigious college and all the expectations that might go with that?

Scarr: I think all the girls at Cathedral School were expected to go on to college and most of them went on to pretty good colleges, because we were a select group to start with. They didn't accept just anybody in this school, you had to pass tests and be qualified to be at a pretty high academic level or they wouldn't let you in the school to start with, so everyone was expected to be an achiever. I mean I didn't stand out all that much, I mean yes I was probably in the top quarter of my class, I'm not sure that I was, it wasn't that I stood out so much from other Cathedral students.

I went to Vassar I would say quite by accident, I mean I think it was clear I was going to go to a reasonably good college, and at that time the seven women's college were all potential candidates. But the girl who had ridden the bus with me in Bryn Mawr, Mary Margaret Burquette, who I kept in touch with, went to Vassar. She was a year ahead of me, and she loved Vassar. And then there were several other girls in classes just ahead of me at Cathedral School who went to Vassar and loved it. And so I don't know exactly how I settled on Vassar except my parents said, "Sure Honey, any place you want to go. Let's go have a look." And I never applied any place else because they were fairly confident at the school that I'd get in, so I applied to Vassar and I went.

Weinberg: Pure influence, huh?

Scarr: Pure influence, absolutely. Because I think my parents - my mother had started out at Goucher and then went to Towson State Teachers College, and my father had gone to the University of Virginia.

Weinberg: Oh, I didn't know that.

Scarr: -- and Medical College of Virginia.

Weinberg: What goes around comes around.

Scarr: That's right. Well that's exactly right. My family later gave some money to the University of Virginia in his honor, but that was his alma mater. They had no reason to think I should go north to school as opposed to south, but they didn't ever oppose anything that was reasonable. Again, it's back to that theme, if I wanted to go to Vassar and they thought that was a good place for me to go they didn't say, "Well honey, why don't you go to Virginia instead?" Of course, that was all men at that time, I couldn't have done that, but they weren't sending me off to Mary Washington either.

Weinberg: Well looking at the college years and more broadly just your early adult experiences, what were the kinds of important things to your intellectual development?

Scarr: Well, I think going to Vassar was the most revolutionary thing I could possibly have done. I didn't anticipate the kind of intellectual life that Vassar had, and it had as much to do with the student body as it had to do with the formal education in the classroom. You have to imagine I came from a segregated Washington D.C., racially segregated, a southern family that was very conflicted and dubious about changes in the modern world, having to do with race relations and ethnic diversity and, I don't know whether they knew what I was going to encounter at Vassar. I rather doubt they did, though I think they kind of took it when it came. But I had never known anybody who was Jewish. I'd never known anybody who was black who wasn't a servant, and now suddenly these people were peers, equals, you know, and so forth, and I didn't know anything about their culture, background and so forth, so I started to learn something. You know it was very enlightening to me. And I became very good friends with Harriet Zuckerman, who - you know, Jewish girls didn't room with non-Jewish girls, that was not done. Even people who were good friends, you could see them in any other part, but you didn't go so far as to room with them. But anyway Harriet and I were very good friends and Linda Hirsch, and Harriet and I did our senior thesis together.

Weinberg: What was that about?

Scarr: Whittaker Chambers actually and Alger Hiss. That's another whole story, but yeah. And then actually we defended Alger Hiss, but of course now in retrospect it turns out we were wrong, I have to mention that to Harriet next time I talk to her. But we also did a study on occupational and family aspirations of Vassar seniors. And we concocted this survey and conducted it and analyzed the data and so forth, so that was something Harriet and I did together. But I think it was just I guess I had not been really introduced to the kind of liberal thinking that existing at Vassar at that time. Now that's probably - I would have encountered at many other institutions, but to me it was very striking. And I majored in Sociology and Anthropology because I really was interested in human behavior and people and culture and so forth. I mean I did well at Vassar, I wasn't at the top of my class, but I was close enough. And I guess that Vassar enabled me to think that I could do something beyond be a housewife.

Weinberg: Do you have some aspirations on that?

Scarr: Yes.

Weinberg: Let's kind of focus a bit on the origins of your interests in child development, I think particularly what individuals were important in that intellectual development as we kind of move along now in terms of your intellectual history. And I guess in particular you might consider your research mentors and those kinds of early career and early interests I guess more importantly than early career activities?

Scarr: When I was at Vassar there was a very notable child study department with Joseph Church and Lewis Stone, and a long tradition of research and practice with young children with a nursery school and so forth. Although I was interested in children and child development, that was a very déclassé thing to do to major in child study. Only people who wanted to be mommies and elementary school teachers did that, so I certainly was not going to be part of that group. And it wasn't until I went to Harvard in the Social Relations Department, even then I did my dissertation with Irving Gottesman as you know, in behavior genetics, but I did work with Dick Alpert who later became Rama - whatever it is. What is it? Ramdas or something, I've forgotten even how he calls himself. But at that time he was Eleanor Maccoby's young protégé - derivative.

Weinberg: Derivative?

Scarr: -- derivative student. He was a student of Eleanor's who had come to Harvard as Assistant Professor, and hired me to work on the second Sears-Maccoby study. And I - so I was doing data analysis for him and got interested in the interviews and observations they'd done on children. And Jerry Kagan and I did some work with him and did a special project with Jerry, so, you know, I started to have contact with people who were interested in children and child development. And at that time I was very interested in becoming a mother and had gotten married, married Harry Scarr, and Phillip was born in my third year in graduate school. So when I was deciding what I was really interested in and so forth, you know, I think the overwhelming interest in motherhood led me to want to know more about children and child development to find this all quite fascinating. So when I did my dissertation I selected a sample of young twins and looked at genetic variations in motivation and personality among five to ten year old twins.

Weinberg: One of the topics of interest in their outline for this interview is significant colleagues. I'm sitting here smiling because I hope I'm on the list.

Scarr: Well of course, Richard you're at the top of the list. I mean after twenty-five years Richard, how could you doubt?

Weinberg: But maybe you could kind of comment because I think if I can make a commentary I think that your career does reflect a wonderful collegial relationships with folks, but that is somewhat unique because there are many folks that have really established stellar careers who are known to not be collaborators, and in fact to be quite the opposite, that they don't work well with individuals. And maybe you could just talk about collaboration a bit and the complimentary nature of it and how you have a rich history of collegueship and collaborators with a variety of people who would surely be nodding their heads yes.

Scarr: Well, thank you. Well, I think one of the first sustained collaborations I had was when I went to Penn. After a couple of years at the University of Maryland and The Institute of Child Study, I went to Penn and started collaborating with Peggy Williams who's a pediatrician, because we really needed each other. It was interesting, she was running Philadelphia General Hospital's Neonatal Intensive Care Unit, and on the faculty at Penn in a kind of tangential role, but Peggy was a very bright woman and very interested in what could be done about these - as she used to say -- 'dead and dying babies in her ICU Unit,' and I was interested in the effects of stimulation on these very immature organisms. And I had read the animal literature on early

stimulation and brought Rosensweig to bear on neonatal care of preemies. And we set up a very nice experiment and follow-up studies on preemies who received more stimulation in the hospital versus those who had received the usual, at that time, isolating pediatric care of newborn preemies. But we were very complimentary and I think had tremendous respect for each other, although we had very different knowledge and skills. As you know, I mean I came from working at Penn on neonatal issues, but always continuing my interest in behavior genetics because I did the Philadelphia twin studies while I was there on school achievement and IQ, and made a big splash in Science in 1971.

Weinberg: I recall you writing up that paper locked in an office actually in Minnesota when you lived there, you were actually writing up that work. That was the first year that you had actually been in the school psychology training program before you moved into the Institute of Child Development.

Scarr: That's right. So in that particular work I wasn't collaborating with anyone I was just doing this with students, but when I came to Minnesota I started talking to you about all these interests in behavior genetics and we obviously had some complementary and similar interests. Then we started this collaboration on the Minnesota studies which has gone on forever. I suppose it's odd for us to be sitting here talking about them for posterity, because with principles involved it would be easier if there were an outside interviewer asking us penetrating questions about this collaboration.

Weinberg: Well I think that the point is too that - and I can make a comment about your other relationships when you did go off to Yale you also began a relationship that built off of student relationship with Kathy McCartney.

Scarr: Yeah, sure.

Weinberg: -- which is continuous to this day as well. And I think that that sort of mentoring that you have provided in many of those relationships then becomes more collegial and kind of at a different level where you've appreciated what people have to contribute to those sorts of things. Let's talk just a little bit before we get into the very specific aspects of your interests in your career and how that's evolved. What political and social events have influenced your research and your writing and even your teaching? What are your - you've had strong political interests over the years.

Scarr: Yes.

Weinberg: -- but are there some salient things that you can sort of think of that have occurred that are benchmarks?

Scarr: I suppose really the most important political/intellectual background comes back to my undergraduate days, where in the sociology department and anthropology program at Vassar everything was environmental; there was no such thing as any inherent organismic differences that influenced how people turned out at all. And I knew better that individual variation had a lot to do with genetic background, or it had to, because the same forces that shaped one person one way were said to shape everybody the same way, yet I could observe differences, so it made no sense to me. And I thought even then there was tremendous confusion between sources of individual variation and influences on species development. And I knew that as an undergraduate and I knew it couldn't be true. So when I went to Harvard I really was interested in individual differences and explaining how people come to be so different from one another. And I remember one discussion in the kitchen in Washington with my father saying, "You know they keep telling me that genetic differences don't have anything to do with it," and my father said something like, "You know honey, you know they do." I said, "Yes, I do." He said, "Well then, that's what's important."

Weinberg: It's interesting how you recall that too.

Scarr: Yeah, well of course it's very salient. So at Harvard having Irv Gottesman there was very important to me, but that was because the intellectual political stance of the times in the early 60's was certainly very anti-genetic and anti-individual differences. I mean I guess individual differences were really thought to be errors in that we just somehow didn't measure it right or there were so many random kooky events that influenced this that who knew, who cared. So it was kind of a strange, strange social political climate at that time.

Weinberg: So that kind of serendipity to of sort of being at a particular place at a particular time as it's either congruent or non-congruent with what your own ideas and where your research could be going.

Scarr: But I feel we've been fighting an uphill battle because of the misunderstandings about genetic individual variability all this time, it gets a little better, worse a lot, but it's kind of hard to say there's ever been a very favorable time.

Weinberg: Well it's kind of an interesting segue' to the general notion of what continuities in your work are most significant? One of the continuities might be the uphill battles that you're talking about?

Scarr: Yeah, the uphill battles. How people recognize individuality and the important nature of individuality, because I still see all around me overwhelming concern with explaining why groups are this way, whether they are gender groups or age groups or ethnic groups or whatever, without properly understanding that in every group most of the variation is among individuals, not between groups.

Weinberg: That's kind of interesting because I think that if one does study your curriculum vita and sort of see the sort of shifts that have taken place just in terms of particular populations you might have studied in the like, one might wonder how that all kind of comes together. I wonder if you could sort of reflect on, in your mind, where is the continuity that has existed for example as you've moved from the adoption studies to the Bermuda study to interest in child care. I mean how do you make sense out of all of that in terms of putting together your own - the scaffold in describing your activities, your work, your accomplishments?

Scarr: Well, clearly the theme has been understanding individual differences and understanding that there are environmental circumstances that can have profound effects on children, or potentially can, and that certainly theoretically people thought did. So when I think the behavior genetic work speaks for itself in this regard in that we've always been interested in sources in individual differences but we were interested in environmental affects as well as genetic ones, you and I.

Weinberg: Well, and I think our colleague Robert Plomin who has been an important cornerstone in all of this has often argued about the irony that he feels that the field of behavior genetics, and especially the sub-specialty developmental behavior genetics might, have more to say about environments than it has to say about genetics per se.

Scarr: It doesn't talk much - it's doesn't identify genetic mechanisms

Weinberg: Exactly.

Scarr: -- but it certainly does talk about environmental variation in specific measured characteristics, which is something that somehow the environmentalists can't grasp. I don't

understand that, but it's true. So my interest in cultural and social variation, it follows very naturally from my interest in understanding all sources of variation. But my interest in cultural social variation and influences led me to accept an invitation by the Bermuda Government to come and look at cultural differences in Bermuda, in which they started off being very worried about the development of their young children as to whether they were up to par or not. Being a primarily African group, African-Caribbean group, they had a certain sense of inferiority without having any information about how their children were doing. They had only a small sample that had been done for somebody's Ph.D. thesis, a Bermudan's Ph.D. thesis at an unnamed, not very good university, that is, the research was not good. They had been told their children were lagging behind. So we said--again here is where I started collaborating with Kathy McCartney and Deborah Phillips; we started off saying, "What's the status of young children in Bermuda?" We took a representative sample and they were interested in a particular intervention program, in fact, had already started a particular intervention program, Phyllis Levenstein's Mother Child Home Program. But what we showed was that at ages two and four where they were launching their intervention, the average Bermudan child had a Stanford Binet IQ of 102 to 104 at ages two and four, so they were not only doing okay, but by four where you have a lot of language and conceptual material being sampled, they were doing fine or above average. And these children - we also started looking into school achievement for these children, they were doing quite well. So the attention turned in Bermuda to identifying children who were at risk of developmental delay and other disorders and the project continued in that vein. But I'm rather proud that we diverted them from doing some wide-scale intervention that was not necessary and wasn't a good use of government resources, and focused instead on children that, you know, ten or fifteen percent who have significant home problems where some outside intervention and support can really provide some better developmental outcomes for children, and those children who are organically or physiologically impaired in some way. I mean there were children with Downs Syndrome, children with various kinds of genetic disorders or various kinds of injuries, perinatal that needed some kinds of - we used the Portage Program for example with the seriously retarded children. So those things I feel like we provide a service because we started off, I think, in the right way with saying, well what really is the situation, let's do an assessment then let's identify what the needs really are and let's target those needs with the available resources. And we also, I would say, in Bermuda over ten years left behind a lot of research skills; we worked with Bermudans and trained them to do the assessments, to understand the analyses, to think in hypothesis-testing terms.

Weinberg: A very positive kind of secondary outcome that came from that.

Scarr: Well, I think that's very important. It's just like teaching anybody; sure you want to leave behind sets of skills so that people can go on and continue their work.

Weinberg: Nice legacy. The Bermuda Study then also becomes the start of a trajectory

Scarr: Well, there were studies. There were many studies.

Weinberg: Right. But that work and that domain really began a kind of trajectory to do other work in the general area of early childhood childcare.

Scarr: Childcare because it was - why it was amusing in retrospect was that we were told to be very focused on these children's families because they thought initially that if they had any intellectual deficits and problems they had problems from their families. One of the things we discovered rather early on was that eighty percent of Bermudan children were in some form of childcare, and because Bermudan mothers are in the workforce to a greater extent than they are in the United States, we said, well maybe we better look at the childcare environment in which these children are functioning, because goodness knows they are there most of the time. So Kathy McCartney really spearheaded that and did her dissertation looking at variation in quality of childcare environment through extensive observations in centers there that varied in

quality from being absolutely dreadful to quite good. And she was able to show, and we were able to show, and again Deborah Phillips collaborated on this too in several studies, that when children are in those daycare settings there is some impact on their language and social development. However, we've done two large follow-up studies on these children in elementary school between the ages of five and nine and showed no lasting effects of these variations in earlier childcare quality. And I think it's very hard to get this material accepted because everybody wants to believe that anything that happens early always has residual or even more lasting effects.

Weinberg: Inoculation huh?

Scarr: Yeah. As the twig is bent, I think that's the myth. But it turns out to be wrong. I think we do know this from all kinds of research including animal research, that contemporaneous environments are what have most environmental influence on children, and that in any case their families are more important than childcare environments regardless of how much time children are spending in those childcare environments because family influences include genetic variations as well as difference in home environment.

Weinberg: Let's focus a bit - let's put modesty to the side and talk a bit first of all, we'll get to the question of being modest later on when we talk about weaknesses but let's begin with the strengths of your research and theoretical contributions. What do you think the impact of your collective work has been? I mean, as you look back, what are the things that make you sort of proud in terms of the contributions you've made in your intellectual career?

Scarr: Well, it may sound a little odd to say this, but I suppose one thing I'm proud of is that I have not been afraid to tell it like I see it and that if the emperor has no clothes, I'll say so. I have not been afraid to report results that were contrary to my hypothesis, or to report surprising results, and I think you and I faced this a number of times in doing the adoption work. We've never flinched or shirked our responsibility to report it as it is. I think we've wrestled with how we say it, how we interpret it, but I think ultimately we've been honest, and I don't see that everywhere. So I'm very proud of the fact that I've been willing to tell it like it is, because I think that's the only way that science will advance at all is if we're honest and I see so much disingenuous reporting.

Weinberg: That kind of relates, speaking of reporting, what published pieces of yours do you think best represents your own thinking about child development. I mean really related to that, which of the studies - and we've gone into this a little bit, but which of the studies seemed most significant in your work? I mean obviously people only know about these things through the writing or other forms of dissemination, but what sort of stands out in your mind as kind of seminal pieces that caused reaction or caused affirmation by people in the various communities, and sort of think about it in terms of the writing and sort of pulling that out a little bit?

Scarr: Well, I think that the collection of articles and new reporting that I did in the book, *Race and Social Class and Individual Differences in I.Q.* probably collected that line of research, which did have a lot of impact on the discussion and has impact on subsequent research, there are very few people who are willing to undertake research in that area. But it certainly had impact on the discussion of race, social class and individual variability in intelligence, personality, achievements and so forth, and I'm very proud of that. I'm also proud of the fact that I published with the articles, the critiques of those articles, because I think that a reader has a chance to assess intelligently and thoughtfully what the debate is all about.

Weinberg: In that volume that I recall, you actually included in there a paper that you and I had done, which we could not get accepted -

Scarr: Couldn't get published, that's right.

Weinberg: Yes, it was the one about the F-Scale authoritarianism. And it is so ironic, because despite having difficulty with that paper, it is cited often now as kind of one of the corner stones in developmental behavior genetics of an example of a piece that really got people to think a little bit more about what goes on in our measures, what happens in our measures that appear to be strongly environmental? What are the things that are sort of influencing these so called environmental measures? So it's one of those ironies that sort of exist. And I recently had a conversation with Robert Plomin and with Tom Bouchard, who both argued that that is an important paper, but we were not able to get that published.

Scarr: We couldn't get it published because it was contrary to the prevailing ideology, and I find this a tremendous problem. I've had the same problem over and over again and still have this problem.

Weinberg: Speaking of -

Scarr: Well - was talking because that paper that ended up as a chapter in this book that you and I did was very important for the field to hear and understand at that time when we were trying to do this in the late 70's. It was very important for the field to have to hear that there was so much genetic variation in what people thought were entirely learned attitudinal differences among people, and they more or less learned them. . .

Weinberg: At the feet of their parents.

Scarr: -- at the feet of their parents. And what we supported instead was a view that people constructed their own attitudes out of their own intellectual understandings of the world around them and their own emotional responses to those worlds, and that individual differences in emotional and intellectual responses or competencies are indeed genetically variable. We should not be surprised at this. But it would have been so important for the field to at least have considered this as an alternative explanation for what has so often been reported about authoritarianism that it had varied by educational level, it varied by social occupational level and so forth. Well, so does intelligence. So do, you know, other characteristics. We would have had a much better understanding of attitudinal variation among people, quite a different understanding about attitudinal variation among people, if we think that people construct their attitudes as opposed to merely receive them and record them from others. And I saw that as very fundamental to psychology to understanding attitudinal development. I still don't think that that is understood out there in developmental psychology.

Weinberg: Yet you in the last two comments you made, there were illusions to the Scarr-McCartney paper, which has become very famous.

Scarr: How people make their own environments.

Weinberg: Yeah. I mean that there's that connecting and I would imagine, and not putting words in your mouth, but it would seem that that has to be viewed as a significant paper on your part as well?

Scarr: Oh, I think that was a very significant paper. And remember it was in a section that Robert Plomin edited in the Journal, but I don't think would have ever been published by itself.

Weinberg: I think you were the only person that actually had your name on two articles -

Scarr: Well, you and I - Without Robert being given some authority over that section, that paper would never have made it into the general psychology literature or into the developmental literature at all. Oh, there would have been endless battles over that paper. And the same thing I think for our summary of the Minnesota Adoption Studies. We were allowed to say how we saw our work in that '83 paper in the child development section Robert edited. We would not have gotten that paper into any other journal, I don't believe. I think people's minds are so closed and they're so fearful about controversy, intellectual, theoretical controversy, they are so ready to think that there's danger lurking in anything you'd say about genetic or biological differences among people. It was quite frightening to me.

Weinberg: Speaking of papers that might not have gotten published, I'm sort of wondering about your presidential address, SRCD, which of course became an article in *Child Development* and created its own array of controversy and a response from you to that to those series of critiques. Could you talk a bit about that intellectual ferment?

Scarr: When I wrote that presidential address I thought I was summing up what I had said for twenty years. I thought there's not a lot new here, it's just to focus it and bring it together so the people can see the big picture. And I was using examples from our research and from others research to make some fundamental points that I discussed this morning, that whenever we look at intelligence and personality we have to look at both the genetic variation and individual differences in experience. And what was important there was to understand that most environmental influences on these characteristics are not big, easily cataloged, environmental events that are predictable and understood to influence behavior and can be studied. Rather, we don't understand what the source of environmental variation is, because it seems to be quite idiosyncratic in individual differences within families. I thought those were important points to make, but I didn't think it was revolutionary. And I think what got some people quite upset was that it was coming out of the presidency of SRCD, and again it's fear that anything we say will have immediate and direct social policy consequences, which is utter nonsense. Even if they did, one has the responsibility to tell the truth, and one has a responsibility to interpret the world honestly and say forthrightly what one believes, understanding that how one says it can make a difference. Now as I've looked back at that paper I didn't find anything terribly inflammatory about it, but there was advice to me not to publish it, there was advice to, you know, suppress this, there were requests to suppress it, and I find that all distasteful.

Weinberg: And you did as a result of some of that ferment respond with the second paper?

Scarr: Well yes, and I think that publishing commentaries was a great idea. I think they could have had a few more shorter ones, or I found the ones that were published less than challenging. I mean, they were not very well thought through. But it did give me an opportunity to publish a second paper, which I think is really quite sweeping; it's in theoretical

Weinberg: I call it the Darwin paper.

Scarr: The Darwin paper, right. And I thought we had done something rather unusual in there in saying, "Okay, I can tell you in twenty points what the sweep of our understanding of human development is." And I've really - it's interesting, people have neither commented on that very much, nor criticized it very much. If you look at those twenty points, they encompass everything from the molecular to the very macro-social and cultural.

Weinberg: Have you done a citation index on those two papers at all?

Scarr: No.

Weinberg: I think it would be interesting to sort of see that because just my own senses that both of those papers are cited quite often in other contexts and it might be when you have nothing else to do, Sandra Scarr, you might check into that.

Scarr: Check my citations. I've never done that actually.

Weinberg: How about a couple words of *Mother Care/Other Care*, which did win the APA Book Award. We were talking about significant publications and particularly of that maybe just related to the most recent trajectory in your career?

Scarr: Well, I decided when I had a leave back in '83-'84, when I first went to the University of Virginia, that I really wanted to make a contribution to how mothers think about children in childcare. We were doing the Bermuda research on childcare, had results saying, "Okay, you know, I mean there's some contemporaneous effect of differences in quality, but not very much." And there was so much going on with Jay Belsky and raising the horror stories, Penelope Leach about, you know, babies separated from their mothers that are emotional orphans. And I thought, isn't this ridiculous. So I thought it was important to just pull together the research and write a book from my perspective on what are the implications of multiple care giving, and how can it be managed that mothers don't have to feel so darn guilty? What should they be looking for? What do we understand about child development that would lead us to various kinds of care giving? What ought our concerns to be? So I wrote that book in about four months, I just wrote day and night. I really sat down and wrote it. And I loved doing it. And I worked with Judy Greisman at Basic Books, and she was wonderful and supportive and made a lot of comments and I went back and revised and Judy would ask questions, so she was a great colleague to work with on that book. And it got quite a lot of notice I think, and I was very happy of course that it won the APAJAPF Book Award in '85.

Weinberg: And now you're giving thought to another book that would be about parents, right and their -

Scarr: Actually about parenting and about how being a parent changes adult development. It's interesting to me that when I've looked at the literature on parenting it's mostly about how what parents do influences how their children come out. It's not about what being a parent does to parents. And it seems to me having been a parent of four children that being a parent is a fundamental process of change in one's life.

Weinberg: So in terms of your own generativity, now you're dealing with a kind of adult development that comes about for the -

Scarr: Yeah. Do you know - think about Erickson, since you mentioned generativity. Generativity has been interpreted primarily to refer to work in the whole Ericksonian literature. Guess why? It's been written by men, right? And it's that parenthood is much more fundamental than work in an evolutionary sense. I mean if you aren't a parent when you die everything you've done dies because you have no biological legacy. Whereas parenthood is about launching successfully your own children so that they become parents and your legacy is carried on.

Weinberg: So hearing what you have to say it would suggest that you're probably going to have to confront in that thought, that the population of young folks these days who very strongly say they don't want to be parents and make a firm decision about that?

Scarr: Oh, I think there are not that many people who in fact voluntarily choose not be parents. I haven't seen the latest data on this, actually the number of people in each generation who actually reproduce for many decades has been about eighty percent of anyone generation eventually before menopause. If we tracked women not men, about eighty percent reproduce,

and I don't think that figures changed, if anything it's gone up a little bit in terms of percentage of women who ever have a child, because health has gotten better. But I'd be surprised if that plummeted to fifty percent or something, that's just not going to happen.

Weinberg: So as we sort of trace your own ontogeny Sandra, following Mother Care Other Care and now this book on parenting and its influence on one's generativity, would suggest that the next book in the trilogy will be on your role as a grandparent.

Scarr: Grandparent, absolutely. If I could ever get my children to be reproduce!

Weinberg: Sandy I wonder if you can reflect a moment if there are any other publications that you want to sort of talk about that have represented your thinking, or in some ways have been very important in the reactions to that paper, those papers have been

Scarr: Well, starting in 1989-1990, I headed a study of three sites, three states in looking at childcare regulations, family effects and differences in quality in childcare and their effects on children's social, emotional development, and it was a wonderful study, it was extremely well done. Kathleen McCartney headed the Boston site, I headed the Virginia site and Martha Abbott-Shim headed the Georgia site, and we did crosschecks and cross-validations on our data collection and our data coding and scoring and we did all the things we were supposed to do. Marlene Eisenberg was our major domo who really kept the quality control and eventually did many of the data analysis on the project. And when we were ready to publish this paper in '93 it got a storm of protest, I mean incredible protest because what were we saying in this paper? We said that, "Yes, there were childcare effects, differences in quality that were small, that accounted for one to three percent of the variation in measured outcomes of behavior problem, children being considered difficult by their parents and their teachers and in terms of their overall social adjustment, which we had measured with the Plomin scales, the temperament scales. But these were really social adjustment scales so they had to do with activity, emotionality, outgoing ness, social ability and anxiety, and so we thought these are perfectly good in terms of children's overall social adjustment. They're ratings that teachers can do and parents can do. We had very good measurement characteristics and we had very good measures of quality of childcare environments, and we said, "Yes, indeed childcare environments account for variations of one to two percent in all of these characteristics, but the families account for much, much more." I thought that was a pretty good bottom line on what the research on childcare had shown to date, despite exaggerated claims, and that probably that was pretty accurate. So we were never able to publish this paper and we got incredibly vitriolic reviews. And some of the reviewers were honest enough to say, "I don't want to see this paper published because I think it'll have bad implications for childcare, or we won't get public support for childcare if people don't think it's important, or we don't want people to think that quality in childcare doesn't matter because everybody will put children in warehouses and stuff like you know." So people jumped from what they saw as the implications of saying childcare doesn't matter or difference in quality in childcare doesn't matter all that much in terms of children's development, to saying we can't publish this because it will have damaging effects on social outcomes we consider desirable. We were very careful on this paper to say, "Look these differences in environmental quality while children are in childcare may not account for much variation in their fundamental social adjustment or in their behavior problem, but we aren't measuring whether they are happy every day, the children are having a good day, whether they are basically enjoying where they are. We are measuring some things we can say that are valuable and important, but this was just a terribly controversial paper. It also was running at the same time this large scale NICHD study was running, and we were ready to report way in advance of their report. And I'm afraid to say that it was a very political issue, and now the outcome is that they have announced their results that childcare doesn't matter, differences in childcare do not matter very much, it's family that have the big effects. And now the paper has been accepted.

Weinberg: Go figure.

Scarr: Go figure.

Weinberg: Sandy, you raised an interesting point about that--what unfortunately has sometimes become a political process of journal reviewing. You have been an editor yourself in a variety of contexts. You've been the Editor of Developmental Psychology; you have edited, I think, the first issue of the special issue on child development that occurred in American Psychologist, which was a highly touted sort of piece.

Scarr: I was the Associate Editor of the American Psychologist.

Weinberg: And most recently you have been co-editing Current Directions, the relatively new APS Journal. I wonder if as a kind of segue' you can reflect a bit about those editorial experiences. What have you learned from that kind of process and what do you think you've given to the field in that role?

Scarr: I feel that I have been able to accept some articles that help people think in different ways about the field, and that I have tried not to narrow published pieces to those that are unthreatening or unthreatened by any criticism. I feel that too often that's the case, that what we publish doesn't threaten the mainstream. That is a very sad commentary on our field, it has narrowed down our purview, narrowed our perspective on human development to such an extent that it's only the ideological cant that gets published. I tried in all those years of being an editor not to do that, to find the pieces that were challenging, challenging to my own perspective, things that raised questions that were different ways of thinking about things, and I think that's the most interesting material for us to read.

Weinberg: Do we hide behind those kind of anal-retentive perspective on research methodology and rejecting papers that could be of interest and controversial but that might have some methodological problems even when they're addressed in the discussion section?

Scarr: You know I'm pretty tough methodologically, as you are. You and I are pretty severe in terms of caring about good measurement and caring about statistical reliability of results. I don't want to be interpreted as saying that, you know, case histories that are interesting and bizarre will be the foundation of the science, because they aren't. They may be good in generating hypothesis but they're not tests of hypothesis.

Weinberg: Thank you Sigmund Freud, right?

Scarr: So it's not that I'm going soft in my old age here, it's that I think there are plenty of ideas out there with suggestive data that may be statistically reliable in a limited sample or a sample that is - let me put it this way, where the study is not the end-all, be-all of answering a question, but is more suggestive. Now in itself must have certain reliable characteristics of measurement and analysis, but the ideas are important to get into print. I'm trying to think, there are some good examples of this. I just helped a Swedish colleague with a paper and she did get it published, but I think it had this kind of characteristic. It was when Sweden cracked down on the cost of child care in '94, they really changed the ratios dramatically, and Kerstin Palmeru's had some data on caregiver child interactions when Swedish daycare had ratios of 3-to-1 for under three year olds, and 5-to-1 over three years (three to seven year olds). I often in observed classrooms there were more adults than children because when children didn't show up they didn't send the staff home. Then she observed again when the average ratios were like 4-to-1 under three and 8 or 9-to-1 over three. The irony, and this is the kind of thing I really like, is that interaction between adults and children were better under the conditions where there were fewer adults and more children because, in fact, teachers then do their jobs. If

there are only a few jobs and a number of adults around, the adults talk to each other, and they talk about their social lives and they act like they're being paid for sitting around and observing what children are doing and making sure that they're safe, but they're not teaching them and engaging them and interacting with them. Whereas if each adult has 3 to 5 to 7 children to deal with, they in fact, then get in the teaching mode and get in there and interact and do what they're trained to do. She got criticisms for this, that she was undermining quality daycare because she was supporting the enlargement of ratios of children. They told her this was horrible, a horrible outcome. They criticized her methodologically. It was just like a firestorm that came around this article, but actually - I mean she did get it published, but that kind of thing drives me up the wall because this is important information. And you could say that my study doesn't replicate that, or you could say that further research is needed, God knows, but you can't say what she did doesn't deserve publication, and I see this everywhere.

Weinberg: A segue to that frustration regarding publication relates to funding of projects. And maybe you can reflect just a bit about the funding of your own research activities over the years and then the role you played in perhaps enhancing the research funding apparatus in this country through policy work in the various organizations, or individually that you have influenced?

Scarr: Well, I suppose like everyone else I haven't found it to be especially easy or generous to deal with granting agencies. We've been fortunate, though, Richard, in getting support for our adoption research, and I have gotten support for twin research and I had gotten support for childcare research, so I can't say that I have been short of funding. On the other hand it has always been a battle. I think in some ways it's been easier to get funding than publications. I mean it may seem strange I'm saying this, you know, I have more than two hundred papers published, it's like I should be complaining, but the grant agencies have usually included on their panels people who understood behavior genetics and who could understand that it is important to challenge prevailing ideology, so that's not been as difficult I think as the publishing part. Now I haven't played very much of a direct role. I said all along that one can either be an editor on a grant review panel, I mean if I did both I would never have gotten any work done, so I've chosen to make a contribution to the publication process as opposed to serving on grant panels. In terms of organizations I've tried to in being President of the Behavior Genetics Association or being on Boards of Directors at APA and APS to have direct influence on granting agencies favoring behavioral science research or favoring child development research.

Weinberg: You've played a key role in helping establish the human capital initiative, which helps to really provide strong catalyst for funding of the behavioral sciences themselves.

Scarr: Yes. I mean initially I was on that panel and set the broad parameters for it, but of course Milt Hakel is the person who's really carried that on. I'm now rejoining that effort as President of APS.

Weinberg: Next week.

Scarr: Next week.

Weinberg: Okay. Anything else you just might want to reflect about in terms of the kind of research theoretical contributions?

Scarr: Well, I hope that in more public writings, that is Mother Care/Other Care and articles I've written along for Shape Magazine and for Good Housekeeping, and things I have done in Psychology Today and newspaper interviews and that sort of - well I've done television, I've done quite a lot of television interviews and television shows, that I have been able to present to the public a view of child development that makes them feel both responsible for their

children's well-being but not blame-worthy for how children develop. When I started in the 60's in this field there was a great deal of blaming parents and teachers for children's outcomes, and that the child's outcome was used as prima-facie evidence against parents or teachers if the child's outcomes were not favorable. If they were favorable they were given all sorts of unreasonable credit. Now I hope that I've been able to communicate that children are unique individuals from the time that they are conceived, and that genetically there are huge differences among people, that these propel people into experiences that they find compatible with themselves and that environments are not randomly associated with people, that people seek and select experiences that are consonant with their own genetically given characteristics. And that there's this synergy between genes and environments, they work together to make people what they are. To change the course of that direct development is very much more difficult if not impossible in many regards, and therefore when parents facilitate their children's development it's different from saying they imprint or they mold that child. They don't mold that child. What they best can do is provide the most supportive environments and opportunities, rich, varied opportunities for children to pursue their own interests and their own development. I hope in communicating that to the public, where by the way, this message has always been more acceptable than has been within the field. Parents know. I've always said parents with two or more children know exactly what I'm talking about.

Weinberg: Let's switch gears and deal with context in which you've worked. You've been in a variety of places, you haven't moved that much but you've been in a variety of very interesting sorts of environments. Maybe we can just sort of briefly run through the institutions in which you have worked after you got your degree at Harvard, your first job you've indicated was at Maryland, right?

Scarr: At Maryland.

Weinberg: Right. And from there you went to Penn, is that right?

Scarr: Yes.

Weinberg: And then from Penn you came to Minnesota and actually had an internal shift there as I indicated earlier, right, in the school psych program? And then -- which we're very proud of at Minnesota. And then you moved into the Institute of Child Development.

Scarr: As you did later.

Weinberg: Yeah, right. And maybe let's sort of start with the Institute, I think you would agree the Institute has played an important role in the history of child development. What did you find during the years that you were there that might have been going on in that environment in terms of even your role within the Institute? It was somewhat unique to have someone with your kind of background and interest there and maybe you could talk a little about being at the Institute?

Scarr: Well, I think during the years I was there, there was more emphasis on experimental kinds of studies and socialization than there was on anything evolutionary or genetic, although Bill Charlesworth was certainly interested in these studies. Herb Pickl understood what I was talking about, and of course you were there in this environment, so I certainly had colleagues who understood what I was doing. I think the interest in individual differences was limited, there were not that many people in the Institute interested in individual variation, but I certainly found colleagues in psychology, and you and Byron. You know, I think there were people around who made it a very intellectually compatible environment.

Weinberg: That connection with school psychology I think was interesting as well, because I think it did sort of reflect that scientist practitioner perspective that sort of affects ones thinking quite a bit as well, right?

Scarr: Yes, even though I've never been a scientist practitioner.

Weinberg: But you influenced that by being a member of that faculty and I think have been appreciative of the complexity of that role, especially we talk about the giving away of knowledge and information. In a sense you are a scientist practitioner when you disseminate the way you do. It's not a clinician, but it's a practitioner in the sense that you are practicing what you know.

Scarr: Yes.

Weinberg: You moved on to Yale after that.

Scarr: Yes.

Weinberg: And how about

Scarr: You didn't mention the Center for Advanced Studies in the Behavioral Sciences.

Weinberg: That's right you went there first.

Scarr: That was a very important year, and I think the Center deserves a lot of credit for giving behavioral scientists the opportunity to develop further. And one of the most important things that happened to me at the Center was not only the opportunity to write up and get some work done, which I did, I wrote a lot that year, but it was also working with Arthur Goldberger, who's an econometrician from the University of Wisconsin. And Art Goldberger, although ideologically I think very different from me and very dubious about heritability and behavior genetic research, was a wonderful colleague. He was so supportive and taught me so much about econometric analysis, which is really the source of a lot of our analysis in psychology. So I learned much more about modeling and the kinds of complex and dynamic statistical models that I had not really understood well before, and they're very applicable and they've become very wide spread in behavior genetics. But they really came - Arthur Goldberger is one of the seminal thinkers in this area and he was a wonderful colleague, and I got to see him every day because, of course, we had time to actually sit and think and learn from each other there. So that was a very important year in my life.

Then I went to Yale and, of course, you know I think Ed Zigler for all his ups and downs is a stimulating colleague. And I found Tex Garner a wonderful colleague and support. Tex Garner is a mench, Richard, in your terms. He's a man who was always challenging and always listening and always learning, and he was very important to me there. I think that Yale was an environment where if you are very independent and can do your own thing, you have all the space and time to do it, and that was very important to me at that time. I felt that I really developed at Yale. And although it was a kind of lonely institution for many people, it's one that allows people to get on with their work, and rewards individual achievement. It's not a groupie place to say the least. When I went to Virginia it was more of a lifestyle choice than anything to do with the institution.

Weinberg: And that was an endowed professorship, that Commonwealth Chair?

Scarr: Yes. But I think I left Yale, not because I didn't like the institution, so much as Charlottesville was a very much nicer place to live than New Haven.

Weinberg: And you went as Department Chair as well?

Scarr: I did. And that was rather an afterthought on their part and mine. I was not hired to do that. Mavis had been Department Chair for several years and wanted to step down. And I think there was enough dissention and problems and that it was more that they didn't have another candidate, and they said, "Well, why don't we just get somebody from outside to do this?" So I was asked to do that. But the first year I was there '83-'84 I was actually on leave and that was when I wrote Mother Care/Other Care.

Weinberg: Could you mention just parenthetically, I think that your contract there had one of the most unique features I've ever heard of in terms of the kinds of sabbatical that was built in at a very short time frame.

Scarr: Every three years Chair holders get a term off. But that was true at Yale too. Professors at Yale get a term off every three years, so that was simply a continuation of what I already had. But it turns out that's what Chaired Professors of Virginia get too.

Weinberg: Okay. That's not true everywhere.

Scarr: No, it's not true everywhere. So then I became Department Chair and I think like any other leadership position I've taken on, I've always tried to say, "What can I do to make this institution better? How can I change it in a way that will make it function better for the people in it to achieve its major goals?" And for department chairs that is really to facilitate people's work, so I changed quite a lot of things about it. Virginia hired a lot of new people, counseled people out, got them other jobs, and I think I built that department in the five years that I was Chair, really built that department. I'm very proud of that.

Weinberg: And now you've taken another turn, you've moved to a very different kind of institution. It's almost a year now that you have become as I indicate in the introduction, the CEO and Chair of the Board of KinderCare. And I have been here for a couple days and sort of watched you in action, and I wondering, just briefly if you can sort of describe a little bit about what this change means for you? That is, you have moved out of academia at this stage in your career, and what does that mean?

Scarr: Well first, I've been on the KinderCare Board since 1990, so for six years I've been on the Board. And I found that I had a lot to learn, that I did not know much about corporations and how publicly traded corporations have to operate. So I learned a lot being on the Board and I learned a lot of business and finance that I had not known before. But by '94 it was interesting to me and quite surprising actually, that the financial and corporate members of the Board, the Directors decided to elect me Chairman of the Board. I think in part it was that this is a childcare company, and having a notable child development person as their Chairman and spokesperson for the Board made some sense, as long as I knew enough about business and finance to not make grievous errors. But from '94 to '95 I think my leadership on this Board became quite notable to them, not only in terms of the child development aspect, but also in terms of the business.

Weinberg: How did you learn all of that Sandra? I mean it really is -

Scarr: Just like you Richard, I learn wherever I am. The more I can learn the better I like.

Weinberg: Well I do find it fascinating as an observer just as I said these past few days, aside from just the fact there's just different jargon it's a different scaffold, a different perspective in looking at the world and think about that. And obviously it didn't occur for you over night, you know one moment you're a Professor at the University of Virginia, the

next day you're a CEO. Was the participation on that Board part of a growth learning experience for you?

Scarr: Oh, absolutely. I could not have moved directly from being a Professor at Virginia, even though I had some administrative experience at running a department, it was nothing like running a large corporation. But what I learned on the Board was not just the vocabulary of business, but the perspectives of thinking about one's multiple constituencies as one is responsible of course to the people for whom one provides the services, that is the children and parents who use KinderCare, the 130,000 families who use KinderCare every day. But also to the 22,000 employees we have and to the shareholders whose money we use to build childcare centers and who expect a return. Now those shareholders are your retirement funds and mine, and they are various foundation's funds and they are various individual investors' funds, so these are people who have been saving money and expect a return on their assets, of course. So one has these multiple constituencies and one has to protect all of them. A Board of Directors is primarily responsible to the shareholders, but that means that running a good business is first and foremost the responsibility of the management, because if you don't run a successful company and provide quality services that people want to buy, then of course the company won't be successful for the shareholders either. So I find that there's a course, anybody who's worked in business knows, that you do well by doing good. You do a quality job of providing what people want, and then, of course, the financial returns come to the shareholders. So there's no conflict here, in fact, what's really fun about this is that I can make the business function better in terms of delivering quality services while being more efficient and effective, bringing exactly the skills I learned and have used in academia all these years, and that's the part I think that people may not understand. That having an analytic frame of mind is extremely important and even specifically with statistical analysis skills that I know really help us in projecting and planning and making decisions about what to do. You've seen in the last couple days - I don't know how much you've understood of what's going on, that we're working on what is the relationship between occupancy in our centers, how many enrollments, percent enrollment given the capacity at the center and profitability. And it's very clear through the models that I've run, I mean I've brought this to the company, that it's not a linear function at all, it's very much a quadratic function of the most profitable centers are closer to 100% enrollment; that is moving from 90 to 100% enrollment is very much more profitable than moving from 80 to 90, and that's much more profitable than moving from 70 to 80%. So although in all childcare companies there's under-enrollment overall - I mean, of course, you've got full centers and you've got new centers that start at 25% enrollment, but in the vast majority you've got somewhere between 75 and 85% enrollment. If you can just move that up, it becomes very much more profitable. Believe it or not, nobody ever modeled that before or understood it.

Weinberg: You see, I challenge you again, you are - this is a different version of the scientist practitioner model, but it really is taking that kind of prospective, that theory and those methodologies and putting them to use in practice.

Scarr: And I've been very interested in cultural variation around the country and what parent's value and what parents will pay for in terms of the care for their children. And there's a big north/south cline in values and willingness at any given income level to pay for childcare. So in the northern states, right across from Massachusetts to California, you have high value placed on early education and on child development and a belief that investing in these services for children is important. So you get state regulations that are pretty demanding and you get high tuitions that will pay for them. In the southern, southeastern, southwestern areas of the country, no. Again, I can analyze this and show you this; maybe I can even publish this, Richard!

Weinberg: I'm not sure in Child Development, but maybe.

Scarr: You get this - we'll its various to cultural variations, I mean we can easily collect data on the attitudinal variation that goes with this. I mean it would be a dream for us to do.

Weinberg: 50 your dream has come true, Sandra. You have this enormous population of how many children?

Scarr: I do. I have a captive population of 130,000 children every day, right?

Weinberg: That would be interesting. A caveat in this to just finish off our discussion of the kind of institutional settings in which you've worked, and that is going back to the academic settings, the kind of tension between teaching and research. Obviously you have trained a new generation of researchers and we all constantly seek out the best ways to do that to provide the mentorship and to teach the courses that are necessary to kind of accomplish that. And I guess I'm wondering as a trainer of researchers or a teacher of child development research, what has worked best from your standpoint in accomplishing that goal?

Scarr: Well, when you say teaching you immediately refer to graduate education. I mean I think let's talk about undergraduate education first. You know, I think teaching courses for many of us is a very frustrating experience. Teaching large lecture classes is not--unless you happen to be a gifted performer who really enjoys being a ham--it's often not a very rewarding experience. Teaching small undergraduate groups I really did like a lot. I enjoyed seminars with students and I enjoyed because undergraduates bring a much fresher perspective I think than graduate students do to intellectual discussions because they've not been so captured by the ideological cant of the day. So they raise questions that are off the wall in some ways and are great fun to deal with. Graduate students, in terms of teaching seminars, I think they're all very eager and interested to learn. I've never found graduate teaching especially rewarding. I mean, it's okay. I don't mind doing it I guess. I think the most rewarding, of course, is working with individual students in research and where you really function as colleagues and - I mean there may be a mentor-mentee relationship, but there's a lot of give and take and listening and talking. I found most useful I think really sitting down and working on things together. And my style has been very much I think the style of that I described about my family and that I would say about the way I've reared my children, which is that you expect responsibility when people agree to something, expect them to carry it out, you expect people to have independent ideas and to discuss them with you and negotiate and I expect - I've always expected the students who've worked with me to have a lot of autonomy.

Weinberg: So really that background has been a good set of experiences for your current work in KinderCare too, in terms of the kind of -

Scarr: In terms of building an organization, absolutely.

Weinberg: Right, and getting the 'work done'.

Scarr: My job as Department Chair at Psychology or CEO at KinderCare is to maintain a setting that facilitates everybody else's work. Now I have to make sure I have the right people in place to get the jobs done that need to be done, and I have to have the vision about where the company's going and write the business plans and make sure we're on track. And my job is to keep everything going and on track across all of the functions of the company. And I can tell you here because they move so much faster in business; it's just a constant fast-moving stream. You feel like you're in a

Weinberg: Millstream?

Scarr: No, it's more like your standing watching this enormous river go by and you see something that needs to be fixed and you have to plunge it and grab it before it gets away from you, because it moves so fast. It's completely different from academia in that regard, completely different.

Weinberg: We watch the trickle of water.

Scarr: The drip, drip, drip.

Weinberg: The drip, drip, drip, right.

Scarr: Yes, this is very, very much faster. And things you have to intervene and act and decide quickly, because it really makes a difference.

Weinberg: -- your experiences with SRCD. Do you recall your earliest contacts with the Society and maybe even a little bit if you can recall the first biannual meeting that you might have gone to?

Scarr: Well, I know I went to the biennial meeting in Philadelphia in that motel out on the center line avenue or whatever it was, where I think it was in a fairly small setting. But I think Harold Stevenson got me involved in the Long-Range Planning Committee and that's about - I can't even remember Richard when that was. I'm going to say '72, '73 or somewhere around then. And so I started working on committees in SRCD fairly early in my career. I was on the Interdisciplinary Committee and then I guess I was elected to the Governing Council. I can't even remember when that was. I haven't rehearsed this, so someone will have to go look at the dates on these things. I got involved in the Finance Committee. I've always been good with numbers and money, so I got involved fairly early on in those activities. And because I was interested in behavior genetics and even had a background of course in sociology and anthropology, I was considered one of the psychologists who had at least passing acquaintance with both the biological and social sides of the developmental field.

Weinberg: And then after that Philadelphia meeting, I'm assuming though that you pretty much came to every meeting after that?

Scarr: Oh, yes. I don't believe I've ever missed an SRCD meeting. I think I have been to every one of them in my career.

Weinberg: And I indicated earlier you were Editor of Developmental Psych, which is not an SRCD journal, but really is in a sense a sister journal to Child Development. And I'm sort of just wondering, we've never talked about this, at the time you were Editor of Developmental Psych were there any unique kind of exchanges with the editorship of Child Development as it related to the two journals being complimentary?

Scarr: Actually not. You know they really in some ways aren't complimentary, they're competitors.

Weinberg: Yeah, I was trying to be kind.

Scarr: Well, I think there's very little contact between the two, or at least when I was Editor there was. I don't know it sounds like asking if G.M. is collaborating with Ford. I mean yes to a certain extent, but I mean they're both trying to attract the best customers.

Weinberg: Maybe it was an anti-trust problem. During your actual presidency, what was going on? What were some of the problems and issues that you particularly had to confront in your presidency?

Scarr: I think the publications issue has always been a difficult one for SRCD because they have the flagship journal, *Child Development*, which many people on the social science and on the medical pediatric child psychology side do not see as at all representative of their interests or their work. And they see it captured by the rather hard-nosed experimental wing of developmental psychology and it doesn't even represent the social policy community within developmental psychology. So the battles over the journal were raging hot and heavy. I think that the possibility of starting additional journals to represent more the interests of these constituencies identified was under discussion. It never got anywhere because I think being the conservative organization it is, SRCD is unlikely to respond and start anything. But there's always the possibility I suppose that other constituents within SRCD will either get more representation within the existing journal, which has been attempted over and over and over again, I think not very successful, but that certainly has been the attempt, or they will decide that SRCD is not relevant to them. That's a serious problem.

Weinberg: During your tenure also as President and the time you were on the Governing Board was a time when there was a kind of revival of the public policy committee--

Scarr: Yes, indeed, under your leadership.

Weinberg: --and also the establishment of a different kind of Washington office, right?

Scarr: Yes. And I think I was quite instrumental in doing that.

Weinberg: Yes.

Scarr: I felt that we needed to be represented in the public policy arena and that we needed to have a more proactive committee that was in better contact, more frequent contact with legislation, working with the agencies as they put forth regulations and implemented policies about behavioral science funding. So I worked to get Alan Kraut into the position of Washington Liaison Officer and was successful at that. And you really took a lot of initiatives in public policy and public information about child development, and Bob McCall implemented a lot of that. And we started a new agency kind of fellowships, SRCD, so it wasn't just congressional science fellowships; we got fellowships at the Agency for Children and Families and at the NICHD.

Weinberg: Of course that was necessary because the foundational support for those original fellowships was difficult to be maintained.

Scarr: It couldn't be maintained; we needed to get other sources of funding so that did work out. And I think working with Alan Kraut brought a new sophistication to the Washington efforts for SRCD that had not been there before, and we actually were very successful in laying SRCD language into a number of Bills, challenging NICHD, for example, to fund more behavioral research on normal child development and challenging NICHD to fund more research on normal minority child development. This was very important, because these funds were not being directed that way at NICHD, and however much Duane Alexander might not have liked this in the short run, it really did get his agency much more presence in what are important funding opportunities.

Weinberg: And one other point regarding experience with SRCD, what are the changes you have seen from that meeting in Philadelphia to the present in terms of what it might be doing? How are things the same and how are they different?

Scarr: SRCD has certainly gotten bigger as everyone will testify. It grew from less than a thousand members, to I suppose four thousand members in that time. It changes the nature of

interaction at those meetings for better and for worse. I suppose the better part is you have more diversity represented. The worst part is you don't have as much one on one interaction with people you'd really like to talk with. The meetings become more of a public event and less of a collegial personal event.

Weinberg: And to what extent are those changes the meetings sort of reflective of just changes in the organization per se? I mean during your time period certainly in SRCD it moved to the point of having this central office for SRCD as well?

Scarr: Well, it had a central office with Dottie Eichorn out in Berkley, but it was a very, very small operation. And when the office moved to Michigan with John Hagen it became a bit larger. Still for an organization of its size it's not a very large central organization. I think SRCD has been ambivalent about whether it's the Psychonomic Society that runs on strictly scientific basis and doesn't care about the larger implications of developmental research, or whether it's an advocate organization that's going to stand up for liberal democratic politics, and that's a terrible dilemma. I think it has not done a graceful a job of either. It made a lot of members unhappy about taking more public policy stances, and then I think it's made other members unhappy that stances are always pro big government.

Weinberg: Let's go to the most macro level now in this kind of oral history. We've talked macro micro issues, but now let's really ask you to step back and comment on the history of your field during the years that you have now participated in it. Particularly in terms of the continuities and the discontinuities, particular events that might have occurred, and what the important issues are and how those might have changed? This is kind of a chance to reflect a bit on our field with a big broad angle lens.

Scarr: I think right now there's so much disenchantment with the academic world that it's hard to be optimistic about the future, but let me try to reflect on the past. I think from the early 1960's to the early 1990's, that thirty-year period, there's tremendous growth in the amount of support for behavioral sciences and increasing interest in developmental issues, both within the field of psychology and among the public, and more credibility given to what the research enterprise could do to inform public policy. So I think there were some very positive avenues of influence developed in that time. I think that the opportunities that increased communication afforded us were not explored in the best possible way. Again, I think ideology got very much in the way. Whatever was the mainstream ideological stance of the moment got promulgated as the official doctrine and there was not a lot of mediation. Let's take a notable example with respect to Head Start, which was based on unbelievable optimism of environmentalists, who as Ed Ziegler himself has said, "Often imagine that we thought that a six week summer program using early childhood education could revolutionize children's learning for ever and ever." Imagine. Well I think we've been through periods of reevaluation, but never seriously considering other hypotheses about the nature of human intellectual development or about the nature of environmental influences and what they are. And so we keep putting forward deliberate, planned programs to intervene, when all the evidence says that environmental experiences are largely idiosyncratic and what we need to do is set the scene for, provide the opportunities for learning, but not program it. So I find it kind of difficult to say that we have made the best use of the opportunities we've had to increase the influence of developmental science on public programs. I think we've not done the best job, because our own internal ideological cant has gotten in the way.

Weinberg: What does that mean then for a concept of prevention?

Scarr: Well, I think what we know is that children do need emotional support and learning opportunities, and that we know how to provide better opportunities for the children who come from the most disadvantaged families. And I think we're never surprised to find out there's an interaction between the child's background and the impact of the program, because

the worst the child's previous opportunities and the more we provide the better off the child is. Whereas if you're dealing with children who have opportunities and emotional support, providing them more of it has less or no influence on their eventual development. I don't think we should be surprised about that. And we could have done better, I guess that's what I'm saying, we could have done a lot better, and I've just been so concerned that the field became captured and remained captive to ideological stances about the unfettered influence of social welfare policies on development, when actually that wasn't the point, that we needed to understand the nature of environmental influences and some of them may not be programmable.

Weinberg: Will there be confrontation around that issue as there is an increased involvement in the study of biological underpinnings of development? Behavior genetics in a sense didn't really look at the biological micro level, but there are folks now who are looking at brain behavior relationships

Scarr: But didn't look at the mechanisms.

Weinberg: Yes, right, and the whole diathesis of mental illness and a variety of other sorts of things. Is that not going to confront this issue head on, or isn't there right now?

Scarr: Oh, if you think about the current Newsweek issue on the brain, and hear the information that the public is being given, says that for language for example, that the earliest, first year of experience is critical for children's development of certain phonology, and we've known that for a long time. But ability to hear and understand various aspects of language and that the brain is, and I'm going to use the word loosely, 'programmed,' because that's the way they put it.

Weinberg: Wired.

Scarr: Wired through early experience, but that early experience is of course ubiquitous in the environment. It's not something you have to program, children hear language, and almost any human can hear. Only if you lock them away in some closet are they going to be deprived of that experience, so what does that say? What do we need to do about that? Well, expose them to a normal human development, right? It says also that intervening them in a deliberate way on language development may affect some aspects of it, and certainly for them to learn vocabulary for example, but that other aspects of language facility are "wired," to use Newsweek's term from a very early age. And so they were proposing are a lot of other environmental influences that become wired into the brain mechanisms, communication if you will, among synapses in the brain early on that set a pattern for life-time learning. But how exactly that occurs and what that recommends for intervention is not at all clear because it's so non-specific. So I'm saying the public is being given lots of information like that by journalists looking at the scientific literature, and I should think that anyone who's concerned with the Head Start early intervention program might say that that's much too late then, or there's nothing deliberate we can do other than make sure children hear language, have human interactions, have some social supports, emotional supports.

Weinberg: What is the intervention fallacy, you've written about that?

Scarr: Oh, well that's quite a different matter in that what we so often do is look at naturally occurring variation and correlation between characteristics of the person and characteristics of the environment, and infer that that environment caused that developmental outcome. So if we observe that children who learn to read easily in the first grade had parents who read to them frequently in the preschool period, we infer that reading in the preschool period causes children to learn to read more easily in the first grade, which may or may not be true. It's just that people who are different do things differently, and parents who are facile readers have

children who are both genetically predisposed to become good readers as well as providing an environment in which those genetically predisposed readers have opportunities to acquire literacy.

Weinberg: And the type of environment

Scarr: It's a genotype environment correlation most often, not that the intervention had that degree of impact, but let me just say a few more words. It may be true that in general that reading to preschoolers has good effects on eventual literacy. However, the amount of impact may be much, much less than the genotype environment correlation would imply because when we study existing variation we are looking not just at the environmental sources of variance, but we're also looking at genetic sources of variance.

Weinberg: You have a kind of pessimistic tone sitting here on a Friday, June 21st, 1996 in your breakfast room.

Scarr: I'm pessimistic about developmental psychology. I'm not pessimistic about life or the United States or children. I think children are fine.

Weinberg: Well to kind of cap off the discussion of field, what are your hopes and I guess you reflected a bit on the fears for the future of our field, but what are some closing comments about that particular topic?

Scarr: I think we need in developmental psychology to separate, now more than ever, the science from advocacy. The sloppy interface that developed over the past twenty years, between what we find in science and what we recommend from our valued positions to be public policy, needs a much firmer boundary, because there are no direct inferences from science to public policy, because public policy always depends upon values. I've now written extensively about this. I see a kind of censorship and ideological constriction of the field that I find very troubling. For example, just now as we're talking - the country is talking about welfare reform and surveys shows that 90-95% of the American public says everyone who is able-bodied should work, including mothers of young children, because as a tax-paying population, two-thirds of the mothers of young children are in the labor force in order to help support their families. So they don't feel that if they have to be in the labor force that we ought to have low income family mothers paid to stay home with their children. It doesn't make sense that their tax dollars should be used that way. It's also the case that's present in Scandinavian countries, 80% of women are in the labor force, 80% of mothers are in the labor force, it's not like this is unique in the world. But we have a developmental psychology community putting out one scare thing after another about alternative arrangements of non-maternal care. We have them screaming alarms, have them saying isn't it horrible, we have horrible childcare, we have it's horrible for infants to be separated from their mothers. It's horrible to have less than perfect arrangements for children knowing that most of these children come from homes that are much less supportive, providing much fewer opportunities than those children will find in any licensed childcare setting. I find this maddening because it's an ideological stance about the role of big government in people's lives and it's so out of touch. It's not helpful in the policy community to have that be the only stance represented, and it is the only stance represented.

Weinberg: Let's conclude Sandra with just perhaps a few words more about your own personal interests today and a bit about your family. We started this oral history with you watering the plant here in the breakfast room; we know you have an interest there. And you've made illusions to your own children, but perhaps you can just reflect a few moments particularly in how those interests meet needs in your life as it relates to the career that you've had, and the role that your family has kind of played in all of this as well?

Scarr: Well, I've often said, you know, what I really learned about child development I've learned from my children, and about differences among them because certainly my four children could not be more different from one another. I suppose most parents say that about their multiple children. I feel that the children have had a great deal to do with my development and where I am as a person, that I haven't always been the best person I could be with them or through their growth and development, but I have learned a great deal and I'm certainly a better person for it. I think being responsible for them for many years as a single parent also had a lot of influence, in that I learned to be both emotionally there for them and having to juggle lots of other responsibilities. I mean it doesn't make me to be perhaps even unusual as a working mom, but being a working mom full-time over so many years of being a parent, because my children are separated in age by eleven years from first to last, it means I've been a parent through my entire career. Whereas many other people with two children more closely spaced would have gone through these periods in shorter periods of their lifespan. I've had a very extended parenthood, so it's been extremely important in my life. I think at this point in my life I feel very much freer to devote myself to work than I have in the past, because I don't have to be home at six o'clock to fix dinner, and I don't have to worry about making sure everybody's getting where they need to go and--

Weinberg: Childcare.

Scarr: --and childcare.

Weinberg: You have to worry about childcare, but for other people now, right?

Scarr: Other people. But that doesn't keep me rooted to one spot or give me daily responsibility of the same sort that I had as a parent. But I'm very proud of my children and feel, of course, that they are the greatest accomplishment of my life, you know, work pales by comparison when one talks about one's own children.

Weinberg: You mentioned that back in school at Bryn Mawr you learned how to relax your whole body--

Scarr: Yes.

Weinberg: --and sort of deal with stress at that point. Obviously we all need outlets that we really enjoy that are removed from work, and maybe you're surrounded by one of those?

Scarr: Well, obviously I love gardening, I dig in the dirt and I love digging in the dirt.

Weinberg: Where did that come from? Where did that input come from?

Scarr: That started very early in my childhood, my mother always loved plants. And as a child one of my great treats was being taken to the Woolworth's Store and being able to pick out a cute pot like it was shaped like a pepper or a tomato or an onion or something with a plant in it, and that would be my plant. And so I remember when I was five, six years old I was taking care of plants and watering them with my mom and that was something we did together. My mother always loved flowers, and I've always loved flowers. I think that's genetic. Anyway I've always loved growing things, and so

Weinberg: Plants and ideas.

Scarr: Well, I would say children, animals and plants. And you know you haven't mentioned the dog.

Weinberg: No, I'm sitting at -- as wonderful little Romeo.

Scarr: But I've always had children, animals and plants in my life. And I still have animals and plants every day, but I don't have the children at home any more. But I love growing things.

Weinberg: Just a closing kind of question Sandra, at this stage in your career, it's far from over, but you indicate you're

Scarr: I'm not retiring any time soon, although I retired from the University of Virginia this year.

Weinberg: This year, right. But at this kind of stage in your life and in your career, kind of reflect a bit on your satisfaction. How are you feeling today?

Scarr: Oh, I feel great. I feel that I have really made a contribution to child development through bringing a different perspective, through helping develop a field of developmental behavior genetics, of bringing appreciation of individuality to the field. There aren't just main effects with a lot of noise, small main effects with a lot of noise, right? It is we really need to pay attention to how individuals develop and what the influences are in their lives. I feel that methodologically you and I have made a real contribution in the trans-racial adoption study and seeing that as a quasi-natural occurring experiment. I think in doing the Minnesota adoption study with adolescents it is a tremendous insight into child rearing affects accumulated across the lifespan, and being very surprised of finding so little impact of rearing experiences, Richard. I mean that was a fundamental change in what people thought.

Weinberg: And being replicated.

Scarr: And being replicated at four different times.

Weinberg: Right.

Scarr: I mean I continue to be replicated. I mean that was a fundamental insight into the nature of social experiences and their lack of differential impact across the lifespan. That's astonishing given the theory of the time. I've been very satisfied that I've been clear in what I've believed and said. I have been very straightforward in interpreting research and giving it I think the most scientifically responsible interpretations, regardless of its popularity or the outcome. And of course at this point I feel I can do a great deal to influence what happens in childcare in America which affects working families and how they can function, what kind of childcare they can afford, and doing a quality job for children, making sure that there is respect and caring out there for children. And--

Weinberg: Making a difference.

Scarr: --making a difference, sure. I feel very optimistic about making a difference because in this role I have a very direct impact on what happens in childcare in America.

Weinberg: Thank you Sandra Scarr.

Scarr: You're welcome.

Those who inspired and were influenced by Sandra Scarr:

Mentors

Dick Alpert
Irving Gottesman

Colleagues

Martha Abbott-Shim
Bill Charlesworth
Dorothy Eichorn
Marlene Eisenberg
Byron Egeland
John Hagen
Milt Hakel
Linda Hirsch
Tex Garner
Arthur Goldberger
Judy Greisman
Jerry Kagan
Alan Kraut
Bob McCall
Kathleen (Kathy) McCartney
Herb Pickl
Deborah Phillips
Robert Plomin
Harold Stevenson
Richard Weinberg
Peggy Williams
Ed Ziegler
Harriet Zuckerman