

## Transcript – Barbara E. Ehrlich, Class of 1974

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Interviewer: Lily Cohen, class of 2012  
Interview Date: December 15, 2017  
Interview Time:  
Location:  
Length: 1 audio file; [38:01]

Lily Cohen: Okay. I'm interested in hearing about –

Barbara Ehrlich: You have to say what – who you are and who I am.

LC: Well, I mean, if I – I wasn't planning on making this part public but if you want we can –

BE: No, no, no, no.

LC: I'm Lily Cohen and I'm here with my mom, Barbara Ehrlich, and we're both scientists but she's been a scientist for much longer than me. And so I wanted to talk to her about how she started in science and how some of our experiences are the same, and how some of our challenges are the same or different, and how far things have or haven't come in science. So, mom, why did you become a scientist?

BE: So, I guess I always thought that I was going to be a scientist. I have memories of thinking of myself as a person in a laboratory with the colored fluids bubbling. It's sort of a, sort of a ten year old's idea of what a laboratory is. So it never occurred to me I wouldn't be. Then when I went to the university I thought I was going to be an ecologist but that somehow didn't appeal to me and I didn't have a very good experience. But, after my second year at the university I went and had a summer job at the Marine Biological Lab in Woods Hole, Massachusetts. Now, as an aside I'll say it was a terrible job. I was a chambermaid in the dormitory. That's because it was the only job that they gave girls back in those days.

LC: What year was that?

BE: That was 1972. So this was just about the time when the women's movement was becoming interesting and so there were some people who talked about what they called "women's lib." But the powers that be only allowed "girls," is what they called us, to be chambermaids. The boys could be – work in the apparatus department or the photography lab but that wasn't for us. But, nonetheless, I really got excited about the kind of things that people did in that summer. And part of what happened was the boys were allowed to go to a lecture during their break, girls weren't allowed. Except I lobbied with the – one of the professors who I learned was a trustee and only Barbara Ehrlich was allowed to go to lectures and I really got excited by what was happening. So, after that summer I went back to university and found a professor who had taught in a class I had taken in animal physiology and said that I'd gotten excited about the things that were happening, and I wanted to see if it was something I wanted to do for my work after I finished college, and could she help me find a lab that might be interesting? And this was Helen Cserr. And she said to come back in a couple of days and she would think about it. I came back in a couple days – oh, and I have to say at that time I was a math major, applied math. I would say that I was pretty aware that I was a reasonable mathematician but I would never be an outstanding mathematician and I went, anyhow, so I went back to her lab and saw her a couple days later and she asked if I would be interested in working in her lab and I was totally blown away. That was like, I totally didn't expect that and that was probably the best thing that ever happened. I started with simple things. So she wanted to use my mathematical abilities, as much as they were, and we did diffusion of dyes in different kinds of mixtures like agar and isolated brain tissue, and then moved on from there to actually doing experiments myself. And I would say [5:00] that's sort of the turning point for when I knew I was going to be a scientist because I really love being in the lab. I looked forward to all the time that I spent there.

LC: How did she become a professor? Do you know any of that?

BE: So, she's a pretty interesting person because she was from a very prominent family. In fact, her name is Helen FitzGerald Cserr, and FitzGerald is the same FitzGerald of John Fitzgerald Kennedy. It's the same family. And so she's – she was a – it was always expected in her family that she would do some sort of intellectual work. And she, again, the same sort of thing, I think, happened to her. She got an undergraduate degree in chemistry at Middlebury and then they were

just starting to let women be graduate students at Harvard and she went to Harvard. And the person that she worked with was this very unique person that mostly was interested in people who were curious, that didn't care anything about whether they were female, male, or what nationality they were. And so she started working with this person and that, I think that's – So then what, the other part that's, of the story, is that her husband was extremely supportive. And after she finished her degree the number of jobs was limited in Boston so he had her look outside of Boston and she found this position at Brown and he said "We'll make it work." And so he really, I think, was an important part of the formula for her. So she – but then she really embraced the whole idea of being a professor. There weren't very many women professors when I was – When I was at Brown there was only one tenured female faculty in the whole university, as far as I know. So she was assistant professor at the time and it was exciting times.

LC: Sometimes I lose perspective because obviously a lot has changed since then, in a positive direction. And I get focused on the – how far we need to go until there's equity or equality. So it's good to hear these stories.

BE: Yeah, no, she – it was pretty amazing that – I think she, she had to be pretty tough because she didn't, she wasn't a complainer, but it was clear that she had to fight for everything she got at the university. And, in fact, while you were still there there was the consent decree where they had to hire women faculty and that's because she was part of that Lamphere case.

So the – there was – in '74, '75, there was a sex discrimination case from Brown where women had been denied tenure. And in the case of Helen there were tapes of the meeting – this is post-Nixon – so the, there were tapes of a meeting that they deleted, tried to delete parts of the tape at Brown, just like Nixon did. And, but the tapes said that she didn't need the job because her husband was a physician and so she didn't need to have tenure. And there were similar issues with the other women, I guess, I think there were three or four women that were in the case. And they eventually settled out of court. That's the consent decree that had to hire more women. But before Helen there were no, there was one tenured woman at the whole faculty.

LC: Was that Helen or that was someone else?

BE: It was someone else.

LC: So she was a not-tenured faculty?

BE: She was not tenured and she was one of the, I think it was four, it might've been three women who sued the university.

LC: So as you're becoming a scientist in this [10:00] environment, was that at all daunting to you, or did it make you want to be a scientist more, or was it, did it make you nervous about becoming a scientist?

BE: I think I was a sleepwalker in some of these issues in the essence that it didn't, it didn't occur to me that it would be a problem. I somehow, because Helen had been so encouraging it never occurred to me that I would, that I should be worried about that at the time. And I can't explain why I didn't, I just didn't seem to feel worried about that. And then going to grad school my class had – the first time I really was struck by something like that was my class started with ten students and at the end of the first year we had a qualifying exam and all five of the males passed and only one female passed. Me.

LC: Why? Is there a story there? Why did the other ones not pass?

BE: One of them wasn't a very strong student and didn't arrange – so one of the things that was very obvious was you had to have an advisor before you finished your exams. You had to pick a lab. It was a little different. They didn't have this whole idea of doing rotations. You had to sort of do that on your own, find a place. And, not a very strong student, and not – didn't pay attention to the fact that you needed an advisor. Then there was one student who would always say, "oh my gosh, oh my gosh, I'm doing so poorly." She was sort of publicly always say how poorly she was doing. And I once asked her and she was doing just fine but she kept saying that and so people grading her, the qualifying exam, decided that because she said she wasn't doing well, she must not be doing well. So that was – Then one person decided on her own that she

wanted to just get a master's degree. And I don't remember what happened to the last one. I don't remember that.

LC: So what did you think when you were the only woman who passed?

BE: I thought I was pretty lucky, but on the other hand I thought – I sort of rationalized it saying, “well, they had all made mistakes that” – for example, the person who sort of undermined herself. I told her that she shouldn't, I had actually told her. She told me that I didn't know what I was talking about. And she did subsequently go back and went to a different university and finished her degree and did, has done fine. But I, I was sort of in shock, I would say. But, again, I was more interested in doing the science so I didn't really, didn't stop to get angry or anything. I just kept moving forward.

LC: Is there a moment when you started paying attention? Because growing up I heard you talk a lot about gender issues and I would often blow them off which I now regret doing. I'm sorry. But clearly something changes where you no longer just kept going.

BE: I think it was a – it wasn't – For me there was no one event that really made me become much more vocal. It was sort of a – there were all these things that piled on and I tried to ignore them really more than anything else because I really wanted to just do the science and not think about this other stuff. But I think with time it just got so overwhelming that you couldn't ignore it. And so there's, and so I told you about the graduate school. And then as a postdoc, you know, there was an attrition of women not – I went to, one of the important parts is I went to Albert Einstein [15:00] College of Medicine as a postdoc and that was a very unusual cultural place in the sense that the university was started in the '50s because of all the people who couldn't get jobs. So it was started with a faculty were people that had been blackballed by the McCarthy era. Women, foreigners, those kind of people that – So it was a very non-standard faculty and much of that was still there when I started in 1980. So, for example, when I – I think the first realization of how intense it was was when I was at Albert Einstein. And I remember three of the department chairmen, chairpersons, who were women, which I hadn't thought about before. But seeing it at Einstein, seeing that that was the case and that wasn't the case anywhere else.

LC: Because that's where you did your postdoc?

BE: That was my postdoc. And I remember writing a letter to my thesis advisor, Jared Diamond, telling him how appreciative I was because I – I thought the relationship I had with him was normal. We would meet every two to four weeks. We'd have sort of these intense, like, two hour sessions discussing my science, what I had done, what I was planning to do, and the, you know, for my thesis. And then there would be some time left over to talk about the future directions of what I was going to do afterwards. And he was very encouraging, he sent me to meetings that – by myself. He was always supportive. And then going as a postdoc and hearing other people's stories, I was totally blown away. I had no clue. So part of it is maybe I didn't pay that much attention because Helen was very protective and then Jared was incredibly supportive that I didn't really feel the brunt until after I left graduate school and saw what happened, how other people – I think that was probably the place where I noticed the most difference.

LC: And what are some of those – Can you tell me some of those things that ended up, sort of you talked about it – them grading or becoming overwhelming. Like, do you have examples of that kind of things that sort of, small things that built up?

BE: Well, [inaudible] at Brown where I would be, the lab next to Helen's lab there's, there was a husband-wife team where the husband was the scientist and the wife was the technician. And I remember them asking me together what I was planning to do when I graduated and I said, well I was going to go to graduate school and in physiology or biophysics. And they looked at me and they shook their head, "Oh, you don't need to do that, you just have to marry a biophysicist." And I went, "oh, I don't think so." I told – that, actually, was one of the first things that happened. And when I was looking for postdocs I remember that a couple of places I went to, the person who was considering – the lab I was considering to enter was actually hostile when I gave – you know, you give a seminar as a potential postdoc. And it never occurred to me that someone that would be interested in hiring you would ask incredibly hostile questions at your seminar. And to me, that was a shock. I didn't – I asked several of my colleagues and they had never had that happen to them.

LC: Several of your male colleagues?

BE: Male, yeah.

LC: That never happened?

BE: So that's sort of one of the things that happened at transition. Then, then early on in my going to meetings I remember going to the Biophysical Society meeting [20:00] and there's like a thousand, back then there was like a thousand people who go to the meeting, and there were probably a handful of women. And I remember standing near a stairwell with, you know, an escalator or something, with three of my female friends and I – God knows what – I don't remember what we were talking about but it wasn't anything earth shattering. But I remember that we all noted that as the men would come off the escalator they all, I think ninety percent of them looked at us. Four women, at a meeting, and they said, "Oh my God, are you plotting against us?" Or, "Oh my God" – and they were like, made, made comments about having four women standing together at a meeting, scientific meeting, was threatening.

LC: Grab your torch and pitchfork!

BE: So those kind of things were shocking. And, you know, when you, you know, each one of these things sort of, now in retrospect, at the time we were pretty shocked that that was happening. But in – I'm trying to think going forward. I mean, I would just say that it seemed like my male – the males in my class all had their careers advance faster than mine. So you can see them sort of moving faster. Though, it looked like it was the tortoise and the hare. The hare, me, has sort of finished the race just fine, thank you.

LC: Yeah, you are indeed a full professor at Yale University now, which is none too shabby an accomplishment. Do you think things have changed a lot?

BE: Oh, absolutely. So I didn't get to say that, for example, when I was pregnant with you, I was an assistant professor and the University of Connecticut had no policy for maternity leave for faculty. So they didn't know what to do with me at the time.

LC: They didn't know what to do with me!

BE: So there's those kinds of things that would happen. But things – And then, of course, then on the other hand, there were a lot of things that happened that your father used to complain about. So I would get asked to be on committees that were sort of really meant for higher level – so I would walk in the room and there'd be like nine other people. All chairmen or deans, and I'm an assistant professor. And there are four – there are nine men and me. So it was clear that I was the token. And so that – that was sort of, I mean, you had to leverage that. I tried to leverage that, though it's hard. It was very hard to sort of get your voice heard. And I don't know if I was all that successful. But every now and then I did. So there's those – So, it's good that you got to see what's happening but it was bad that you got to see that it was a token and that wasn't, didn't feel very good. And, in fact, once I – I was asked to be on many, many, committees because at the time, when I started as a professor, you know, they were just realizing that they had to have women on committees. But there weren't that many women so I got asked to be on way too many committees than I should've for my rank. And, in fact, I started learning to ask, you know, why exactly do you want, you know, what part of my expertise do you think will help in this committee? And lots of times I usually said no, I learned to say no.

LC: That's hard, a hard lesson to learn, saying no.

BE: It was really hard. I just didn't want to do it.

LC: So you've been watching me struggle with gender inequity issues [25:00] and I, now I'm also becoming a scientist, or I am a scientist.

BE: Very much a scientist.



LC: What is that like to watch me deal with some of the same issues that you dealt with?

BE: So I'm going to tell you a story that you may remember. That we went to see this movie called *Mona Lisa Smile* with – we went because I like Julia Roberts. But it was about a woman professor, supposedly at one of the all-girls universities and it was about how it was hard for her to be a professor unmarried and make her way. And at the end of the movie I was crying. Do you remember this?

LC: Only vaguely.

BE: And you looked over at me and said, “Mom, this was not a sad movie. Why are you crying?” And I said, “this is a movie about 1955, or approximately, and I still say the same things to my students in 1995.”

LC: Oh, it must've been later than that.

BE: Maybe 2000. Whatever. But, I mean, I don't remember. But, and so it was that. I had this very deep grief seeing that movie and the idea that the Julia Roberts character tried to get her students to apply to law school, or professional school, or to have a job, rather than just to get married. And, okay, now my students don't just get married, they have jobs. But sometimes I, you know, I almost yell at them because they under employ themselves. So it's the same – part of it is that, seeing that your generation still – The glass ceiling has moved, okay. It used to be that just getting to university, in my mother's age, just having a college degree was a big deal. And my generation, getting the PhD was still a big deal and getting an assistant professor job was really challenging. And now, getting the assistant professor job is not as hard but getting actually to the point where they have a tenured position is still a barrier.

LC: So I feel like I grew up without – we didn't have a lot of religion in our household when I was growing up. And, instead, science was almost my religion, or our household religion.

BE: Yes.

LC: And now – and I believed in it strongly. And I became a scientist. And now that I'm facing all of these, these inequities in science, it's making me have a crisis in faith because if science is not actually based on meritocracy then what is true in science anymore?

BE: Okay, so let's step back a little bit on this because I think that what you see in science is no diff – well, I mean, this “me too” thing has not even hit science yet. It started off in media and politics. I mean, it's – science is going to, academics is next. It's going to be on this cascade. So I think they're not immune to this. But I don't think it's this business of gender inequalities only in academia. I think that there's more room for meritocracy in academia than there is in some other areas. You can accommodate more people and so – And I am a professor at Yale. So it does, the system, although it's flawed, it does support meritorious work.

LC: Sometimes.

BE: More than, well, it's not as [30:00] bad as it used to be. So, I mean, like back – the Journal of Physiology, back when I was first starting, from when it started until about – I don't remember when they changed the policy, but the original policy was males were published with their last name and first initial and females published with their full name. So, if I was a male, I would be B. Ehrlich, and if I was a female I would publish as Barbara Ehrlich, to make sure that everyone knew who was who. And they changed that policy. So I don't, of course, now you and I know that I'm an incredible activist so I try – part of my not wanting to embrace the negative parts is because I really wanted to look at the world as a three-quarters cup full. I wanted to see it that way, I didn't want to see the bad stuff. And I still feel that way. I still feel like it's true, I mean, I feel like I now face not only sexism but ageism. But it doesn't stop me from moving forward. Do I get discouraged? Yes. But I feel like I'm not going to let them get me down. I, just, that's partly how I feel. And I feel like the people that hear me unders – I mean, they – my voice does get heard. Maybe not by everyone that should be hearing it but – Actually, lately I, you know that toy that you had where you pushed it over and it always came back up?

LC: No, I don't remember.

BE: It was this little toy and it had a weight in the bottom. It sort of looked like an egg shape, like an ostrich egg, and you pushed it over – it was a clown egg. It had, like, a bell inside it. And I feel like that. I mean, because I feel like they try to push me down and I keep popping up. And people are like “oh, you’re still here?” And I say, “yes.” And, I mean, there’s that persistence that I’m not going to give up. And I think that people have to have that attitude. You have to just say, “Okay. I’m going to just not give up.” And in that case the merits – every now and then you – it happens. But I think nowadays men are also finding that it’s hard to get their voices heard too. Just, there’s a lot of voices.

LC: So, as you know, I’m considering quitting. Or at least taking a break from science. Are you disappointed in me for not getting back up? For not persisting?

BE: No! Absolutely not. I, because it’s not for everyone. And there’s – you can make an impact on the world in many, many, different – one can. I mean, not you. Anybody can make an impact in many different ways. I think I was taught that you have to give back. Our life is pretty privileged and I feel like as long as you give back in some way – and it can be by making the best loaf of bread and sharing it. Or by writing about your experiences and sharing it. Or by tutoring people one on one, or in a classroom. Or discovering the next great invention. Whatever, I feel like any of those would be meritorious and worthy of giving back. And so, I think you’re a gifted scientist. You have been since you were very little. You thought about things in a way that a scientist does.

LC: You trained me to do that.

BE: But you don’t have to use it in a laboratory or in an academic environment. There are lots of ways to use that kind of thinking. And, for example, Wall Street hires, they love to hire people who have PhDs in the hard sciences because it’s the way of thinking that – and you can use it for many different ways.

LC: What do you love most about science?

BE: I love puzzles. I love, there's something about having an idea and testing it and then learning that you were right [35:00]. It's – there's something. There's – for me it's an emot – the two things that I really love are making people laugh and finding out the answer to a puzzle or a question. It's like there – to me those are the two most seductive things in life that I just like doing that. So sometimes I think maybe I should've been a standup comedian rather than a scientist. I might've enjoyed that more. That looks pretty comparative, too. I'm happy. So that's, I would say the absolute job, that sense of knowing something that wasn't known before and putting the pieces together. I love that. That plus I love having young people. People, as you know, there's been a long string of people your age who come through the lab. And I really like sort of helping them learn how to be a scientist. And I actually don't even care. I have started off and there'd be these physicians who'd come for a short time and sometimes they'd come to me sort of upset because they, I don't know, it's not for me. I say, "great! You learned something." I don't, it's not for everyone. But I really appreciated the fact that they gave it an honest try. And the ones who love it, it's been great, you know, to see how they've flourished. I like that a lot. So that's the part I – interacting with people and sort of young people to help them to find a direction that they're interested in.

LC: And are you happy that you chose to pursue your career of science? How long has it been now?

BE: Well, you want to start from 1972 when I first started with Helen Cserr, that's a lot of years. Like, forty five years. Yeah, a lot of years. No, I'm, I don't regret it. I really – that part I don't regret. Do I think I made mistakes? Yeah, I mean, I made plenty of mistakes [inaudible] career. But I don't think they're unique to me. I mean, I think everyone does. And I'm not sure they're unique to being female. Some of them might be. We need to quit, or take a break.

LC: Okay, thank you.

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