

Charles P. Gershenson

- Born November 20, 1920

Major Employment

- U.S. Children's Bureau
- U.S. Office of Child Development



SRCD ORAL HISTORY INTERVIEW

Charles P. Gershenson

Interviewed by Teresa Levitin
In Washington, D.C.
June 13, 2005

Levitin: Hello. Yes, June 13th—

Gershenson: June 13th, 2005, Washington, hot summer day.

Levitin: We have Dr. Charlie Gershenson speaking with Teri Levitin, who's delighted to have the opportunity to talk with him again and very much appreciates this. Okay. We have some questions about your experiences with the Society for Research on Child Development that we didn't get to before. So do you remember when you joined SRCD?

Gershenson: Decades ago.

Levitin: If you can remember any of your earliest contacts with the Society—

Gershenson: Primarily it was conferencing and just colleagues who were also members of the Society. And actually I was with the SRCD prior to coming to Washington. And I think I was influenced when I was working on my doctorate at Columbia in terms of membership.

Levitin: Do you remember those early contacts, who was involved and what happened?

Gershenson: With SRCD specifically it's not that I don't remember, I don't think I had any contacts. It's just that others were also members, and we would be reading the publication and occasionally attending conferences and discussing what was coming out. We were interested in basically the research and what I enjoyed at that period of time—to me, later on—and the federal government became an absolute frustration. In other words, that the publications at least were so involved with minute research studies, mostly appearing doctoral theses or masters studies, et cetera, trying to show research techniques, particularly statistical techniques that the—

Levitin: So these were—

Gershenson: —relevance to the issues facing children were mostly absent in the domain that I was working in and concerned about, basically children in trouble.

Levitin: But what about the role of the Society in—

Gershenson: Well, my feeling was a frustrating one about the role of the Society. It subsequently developed publications, a separate publication around the policy issues, which was—I applauded that innovation and development. After the Society was beginning to use the child development knowledge, the skills, the expertise, the analytical capabilities to begin to address important issues facing children in our country.

Levitin: What kind of influence do you think SRCD had on government agency initiatives or on policy?

Gershenson: Well, I remember both with a sense of amusement and annoyance—the policy paper or historical issues relating to teenage pregnancy, you know? And it was 50% wrong.

Levitin: Oh. This was the paper that came out from—

Gershenson: It was a paper that came out, and published and—

Levitin: By SRCD or—

Gershenson: —and I was wondering about whether to write a letter trying to correct it, and I decided basically not to do it. They really didn't have a good understanding of the early history of how the programs, the federal programs around teenage pregnancy developed in '60–1965 and they missed completely what was then the attempt of the Children's Bureau addressing the problem of teenage pregnancy, of trying to combine child development theory and knowledge. There was no child development practice so to speak of, so all that we had was child development theory and research, combined with social work, more practice than theory so to speak, in addressing the issue of these teenage mothers. And these teenage mothers in '65 were all expelled from school; they were not permitted to remain, even if they were married, if they were pregnant, and what started the program for the federal government was in Washington, DC, a homebound principle of a school for handicapped children came and asked Wilbur Cohen for help for more money for homebound teachers for the pregnant teenagers. And Wilbur referred her to me and I asked her how many teens were pregnant. She thought there was over 100 girls. And how many were you providing service for? Seven.

Levitin: Oh my goodness.

Gershenson: So—

Levitin: Do you remember who wrote that article now that was 50% wrong? Did you see?

Gershenson: —that was not in *Child Development*. It was in the publication that started—when did it start again—'90, so the '80s. That was a thin publication that was an article that dealt—and the whole series was basically addressing policy issues in child development.

Levitin: But what about the role of the Society in its production of materials, or its journal or anything having an influence on social—

Gershenson: My feeling, my early feeling was that the Society was deficient in its role, other than promoting research in academic development, in child development, that I give them four stars. No question about it. They did an excellent job. But bridging the gap between the academic development, the excitement in research, the development of really a cadre of bright, energetic, motivated people to address issues other than the teaching and doing more research, they were lacking.

Levitin: Okay.

Gershenson: They were deficient.

Levitin: Did you try to remedy that in any way through participating in Society activities?

Gershenson: I did not; I did not make an effort to do that.

Levitin: Why was that?

Gershenson: And that was basically my failure. I thought they were too far removed. I thought I would be addressing deaf ears so to speak. I didn't get a sense, and maybe I'm rationalizing, acceptance of moving into the hard area of dealing with what was going on with children in the country.

Levitin: Okay. Well, do you remember the first biennial meeting you attended?

Gershenson: Pardon me?

Levitin: The first biennial meeting, do you remember attending your first meeting of SRCD?

Gershenson: Oh, I remember attending, and it was exciting, you know, the—

Levitin: Which one was that? Do you remember?

Gershenson: —it goes back to the '70s.

Levitin: Okay. But it was exciting?

Gershenson: It was exciting. The papers were interesting. The people, of course, were engaging and highly motivated in all, but it was like a separate world for me. It was nice—it just reminded me of my doctoral studies era.

Levitin: It was academia?

Gershenson: In other words it was very academic, yeah, and it was good, particularly with what I was struggling with. I was trying to get away from the daily problems of what we were doing, and being in this environment and for me the most important, the most exciting aspect was seeing the whole new cadres of people in the field, you know, still a little bothered by the predominance of women in it, not enough men, also the fact that it was mostly white and not enough African American. At that point we were all thinking of Asian or Hispanic population, but it was exciting and it was invigorating. And it served its purpose for me. It was stimulating. It gave me ideas. I saw what was going on and that in and of itself was rewarding. But it also had a side effect of cooling any enthusiasm for subsequent attendance at these—

Levitin: So you were not a regular meeting goer over the years?

Gershenson: —meetings—no I was not, not a regular meeting.

Levitin: Do you have a sense of the most important changes to occur in SRCD during the—since the '70s?

Gershenson: Well, the important changes that came about in SRCD that I applauded and felt good about was basically in terms of the fellowship program that they developed in relation to Congress, the publications addressing policy issues, and I was a bit concerned—I never got the sense when I went to the Children's Bureau that this was an agency that was a strong advocate for the Children's agency surprisingly.

Levitin: So SRCD—

Gershenson: Not in the sense that the American Academy of Pediatrics or the Child Welfare League or various women's groups were—

Levitin: Why do you think that's the case?

Gershenson: —well, that has always puzzled me, because when I joined Kaye Ettinger was the chief of the Children's Bureau at that time, we had a large support advocacy group, mostly women's groups, but we had business groups, psychiatric groups, the medical profession. SRCD was sort of absent from that. And to me I understood it as it was academia—it was academic. It wasn't fully yet engaged in the daily struggles of children.

Levitin: Do you think it's more fully engaged now?

Gershenson: I think it's gingerly, gingerly getting its feet wet, but body and soul? No, absolutely not. It really is not fully engaged. It's like standing off in academe and writing a paper on an issue and hoping somewhere it connects with it. But the efforts like changing the curriculum in child development to move from theory and research into clinical practice, I'm still waiting, I'm still waiting. There was one publication that came out and I think it was tried in New Orleans—I don't know whether it was Tulane or one of the other schools—of bringing in sort of what I would call clinical child development. But aside from that I saw very little interest even in thinking of it as a field of practice, and my frustration is I was trying to introduce child development concepts into child welfare and approach the National Foundation for Child Development and—what was her name—Blum, who was the director of it at that particular point, and saying would she be interested for the foundation with the Children's Bureau of trying some experimental work, of trying to introduce bringing child development specialists, actually faculty persons, into schools of social work to teach child development to those who were going to work with children. And most of social work is working with children.

Levitin: Sure.

Gershenson: And she was very interested, I was very interested, but before we could work things out she retired and left, and soon thereafter I retired and left the Children's Bureau. And when I subsequently wrote another letter to the current director, to the National Foundation for Child Development, there was no interest in the subject itself.

Levitin: And what, if anything, could SRCD do?

Gershenson: Well, I think what SRCD can do and should do is say to the field how do we take the knowledge we're developing and apply it to the problems that children in our country are facing at the present time? And, particularly, do we need and can we use a field of what I call clinical child development? We did it in the field of psychiatry and psychology to deal with children who had emotional and psychological problems, we did it in special ed in the education field, but we didn't do it in child development. So that in child welfare 80% of the child welfare workers in this country are untrained.

Levitin: Eighty percent?

Gershenson: Eighty percent. Two studies, one I funded and the other the Children's Bureau funded, had 16% had MSWs and about 9% had a bachelor's degree in social work. A subsequent study reaffirmed that.

Levitin: That's frightening.

Gershenson: As a matter of fact, they show how poor the data—we don't have statistics on this. No one knows what it is. So I infer from the longitudinal study going on now and what they refer to as the number of child welfare workers who have social work training are 40%. Now, how many of them are based on a bachelor's degree and how many on a master's degree I just don't know. I don't know if they have the—but most people don't realize here are children with serious problems, psychosocial problems being cared for from a professional viewpoint by untrained people. And that's the current status for over 800,000 children annually in this country. And where is SRCD? Is it aware of it? Is it aroused by it? Can it think of something to do about it? I'm now developing a grant proposal with a New Jersey child welfare agency to bring a child development specialist into a multifunctional child welfare agency to work with the staff to train the staff on child development issues.

Levitin: Interesting.

Gershenson: —in other words—so this is my frustration. My frustration is—maybe mine is a narrow field, but it's the whole broad field. We are not truly applying child development knowledge to the issues, the troubling issues that are facing children. We do need, I feel, a field of clinical child development. And this I would like to see and I could think of no other group than SRCD taking the lead in developing it. Not the Child Welfare League, because they're too bound to social work, and therefore they would feel threatened by it. So—

Levitin: Maybe this interview will make a difference.

Gershenson: Well, if somebody listens to it—

Levitin: I hope somebody's listening. Thelma, are you listening? Let's turn to questions about the field for just a moment. The history of the field during the years you've seen it grow and change, what are the major continuities, discontinuities, events that you've seen in the field of child development?

Gershenson: Well, in the field of child development to me there was particularly one outstanding event, and that was Uri Bronfenbrenner, and the reason I smile, and you can't see the smile on the tape—

Levitin: We're both smiling.

Gershenson: —I was heavily involved with and Uri was heavily involved with us at the Children's Bureau, particularly after the Children's Bureau was reorganized and the Head Start evaluation unit with Lois-Elin Datla was moved over—

Levitin: Oh, Louis-Elin Datla.

Gershenson: —to the Children's Bureau and Ed Zigler became the director of the Office of Child Development, which was the old Children's Bureau. It was—the Children's Bureau and Head Start were combined into the Office of Child Development. And it was sort of a friendly rivalry between Ed Zigler and Uri. But Uri at that point came out and looked at the studies that we had funded in terms of early childhood. And the studies we had funded with Phyllis Levinson.

Levitin: No relation.

Gershenson: —no—on—having a home visitor teach mothers how to play with their children. The home visitor was teaching them play, was coming—not coming in to work on their problems, their parenting behavior, it's as—teaching them how to play, and the toys, of course, and this was an era in the early '70s where I had a theory contra Head Start, which I thought Head Start was a costly program that had a basic fallacy in it and I thought I would like to see if we could address the fallacy.

Levitin: And the fallacy was—

Gershenson: The fallacy of Head Start is you had a mother and she sent her children—she sent the first child to Head Start. Then she sent the second child. Then she sent the third child. What if we educated the mother with the first child so she didn't have to send—and these were high-risk children—the second child, the third child. And then in the '80s Head Start, when it was in the Office of Child Development, Head Start staff—one of the leaders came up with how excited it was, they'd gotten reports from one of the Head Start programs that a mother who had been a Head Start student herself was now sending her children to Head Start. And I listened to it. I said, "That means Head Start's a failure, doesn't it?" And they looked at me stunned and they said, "No, that's a wonderful success." And so I initiated a number of studies of trying to teach the mothers what we were trying to teach them in the Head Start program, in essence, *educate the mothers with the first child*—

Levitin: Sure.

Gershenson: —so she would be a successful mother with subsequent children. Well, Uri found that of all the earlier childhood programs that was the one that had the greatest lasting effects. It didn't have the fadeout—

Levitin: Yeah.

Gershenson: —Levinson—did I say—

Levitin: Yeah, you said Levitin, but that's fine—L-E-V-I-N-S-O-N, yeah, yeah. And of course.

Gershenson: But that's—

Levitin: And she's still no relation.

Gershenson: —yeah, I know. Then Uri comes out with a brilliant paper on ecological child development. What Uri developed and discovered was social work—which is alien and new to the child development field—social work's whole theory and premise for over 75 years had been the person in the environment.

Levitin: Like a good social psychologist.

Gershenson: And the whole thing was the person in the context of the community, the family, society he was living in. And what Uri brilliantly did, and I gave him credit because he didn't know the social work literature, he reinvented social work for the field of child development, and particularly for research and said, "Stop studying college—the students of the faculty and the students in getting doctorate degrees, and study real children with real problems." So that to me was a turning point—

Levitin: Okay.

Gershenson: —and I think a real turning point in the field. It finally started moving away from super academic parochial interests to seeing the child in the larger context, in the ecology, and the environment. He wasn't able to and no one has yet linked that with the literature in social work. In other words, that the people who know child development very well do not know the child welfare literature—

Levitin: And vice versa.

Gershenson: —and social work and conversely.

Levitin: Sure.

Gershenson: So we have two separate worlds that have to get together and I think the development that I see changing is that world is more so regrettably from the child development field. I say regrettably, and not so much from the child welfare field. The regret is because the child welfare is dealing on the line with the children and their problems. Child development is dealing with master's and doctorate degrees and not with the application to social issues and social problems.

Levitin: Well, actually that was my next question about your hopes and fears for the future of the field, I mean, you've already partially answered.

Gershenson: So you have now beginnings of the translation. Bettye Caldwell is teaching child development in Little Rock. She's doing that because her daughter-in-law is an adjunct professor there and so I'm sure through the influence of her daughter-in-law she's teaching, and her focus when I spoke with her was on attachment theory, very important in the field of child welfare, and searching basically through the internet school of social work, the University of South Carolina child welfare curriculum has introduced child development. So you're beginning to see greater, greater infusion, but I would say it's a trickle. It's really a trickle. And to me, when I was at Columbia doing the doctorate there was some colleague who did a study that showed it took 30 years for what we were learning, you know, in academia to be translated across the street into Harlem. And here I'm wondering why do we have to wait for 30 years to bridge this gap between child development and child welfare? Do it at a much more rapid pace. I would like to see a foundation like the National Foundation for Child Development support what I would call scholarships, fellowships in other words, at the doctoral level where it's a joint degree both in child development and in social work. I was chair of the dean's advisory council of the Columbia School of Social Work for several years and I was trying to promote these joint degrees. And at Columbia they do have the joint degrees with the School of Business with the School of Law, with the School of Medicine, you know. But none in—with the field of child development—

Levitin: Now see, at Michigan they had social work psychology, so not specifically developmental psychology—

Gershenson: Right—psychology taught in social work, but not—what I would like to see is developmental—

Levitin: Right.

Gershenson: —psychol—a joint degree program. And what we need is moving into the public and the private agencies, and particularly in places like the professional organizations like the Child Welfare League, like the National Association of Social Workers, with people with a doctorate degree 1) to raise the status of the field, and 2) to bring the wealth of knowledge. It's not only to bring the wealth of knowledge, but bringing the knowledge to get the feedback and understanding of what the problems—and redirect the faculty and focusing on problems with doctoral dissertations, problems for study, and to get away from what I call the “micro-esoteric studies” into the term that not many people use “exoteric studies,” problem-oriented kind of studies around children and their families.

Levitin: I need to change the topic, because it says here personal notes. If you'll tell us something about your personal interests and your family, especially the ways they may have had a bearing on your scientific interests.

Gershenson: Well, my family, my wife here is a social worker and she worked with children—

Levitin: I see.

Gershenson: —children in the DC school system, and her specialty was emotional disturbed children in it. So my whole family is basically pretty much oriented—my sister-in-law was a dean at the School of

Social Work—Harriet’s sister—in Maine, and she’s now retired out in Oakland, California. My son in Albuquerque is a child development specialist for the Albuquerque school system, examining children, particularly preschool children, in terms of eligibility for federal programs relating to their disability, and he’s married to a pediatrician, who’s the health director for Albuquerque. She’s the public health director for Albuquerque. Another son in Oakland teaches at San Mateo Community College, and his wife teaches in—was teaching at the Richmond district high school area. So I’ve had a family that’s been heavily involved with children, teaching, and really with medicine in relation to children.

Levitin: Have they influenced the way you think about scientific questions or applied questions?

Gershenson: With them—well, the feedback I get from them primarily is the newer problems, you know, every generation—one of the earliest studies I did right after my doctorate in the ’50s when I was working for a private agency in Chicago was the workers were telling me and telling the director of the agency, “We’re dealing with more difficult families than you older generations.” So we did a study in conjunction with the University of Chicago School of Social Work. It was a joint study. And we had the old records and the current records to see if the problems that the current workers—current workers in the ’50s, were they different from the problem that they were dealing with in the ’30s? You know, the problems weren’t different, you know? Our awareness of the problems basically had changed, the resources in dealing with the problems, but each generation feels it’s dealing with more, and what I’m getting the feedback—in response to your question—oh, the problems now are more difficult than what we were dealing with in the ’50s, ’60s, ’70s, and they’re not any different. They have different—yes, drugs are more a problem than they were. Well, if you read the child welfare literature alcohol was the earliest studies in child welfare as far as drugs are concerned, and the studies then are no different—so what we have in drugs at the present.

Levitin: Any other information, any things we didn’t talk about that you’d like to—

Gershenson: Well, I think the other thing I would talk about in relation to the field, and this relates to the work I’ve been currently doing in the child welfare agency dealing with the issue of substance abuse and pregnancy with middle school children, and therefore, my engagement with the other federal agency dealing with the Center for Substance Abuse Prevention so to speak, and then the substance abuse treatment. So the whole effort on substance abuse in relation, particularly, my concern with children, and the sophistication is remarkable when I compare the old days at the Children’s Bureau, to the kinds of studies currently supported.

Levitin: Conceptually, conceptually or methodologically or—

Gershenson: —methodologic—

Levitin: Okay.

Gershenson: —well, to my horror what comes out, that methodology has overtaken conceptualization and understanding the real world. So now they’ve come out with a whole new set of criteria to get on their listing of exceptional or promising programs so to speak. And I look at—I attended a conference by CSAP here in Washington on new criteria, and there were new criteria because we have a new administrator for the program, and therefore new things, and things have to change, and I understand that. I went through 11 changes in administration—

Levitin: Oh my.

Gershenson: —when I worked in government. And in the criteria on an exceptional program, now, whether we’re discussing a program to help prevent substance abuse in children and their subsequent, you know, use of it as they grow older. Okay? It also applies to treatment, but I’m going to focus just on the prevention. So the criteria of selecting a program—well, 80% criteria are focused on the

evaluation study, not the program itself, but on the study evaluating the program. There wasn't a single question in terms of the program evaluation asking about the leadership.

Levitin: Really?

Gershenson: Not a single question asking about the training of staff and all the caseload of staff, the available consulting services available to staff on difficult problems, turnover of staff, criteria for hiring is a void. So what we're evaluating for programs to get into this special federal listing—I wouldn't mind that, except I'll point out why that has become dangerous—is the quality of the evaluation of the program as a substitute for the evaluation of the program. The reason that became, in this particular agency I was working with, who was rated promising, they missed by two points being—

Levitin: Oh, exemplary?

Gershenson: —exemplary. I'm biased, and I should say for the record and transparency I did the evaluation.

Levitin: Ah, okay.

Gershenson: You know? My evaluation cost 25,000 dollars, you know? And of course, it's rated compared to evaluations costing three-hundred to a million and a half.

Levitin: Quite a difference.

Gershenson: Okay. So I wasn't able to get a randomized control group and all. Mine was a retrospective longitudinal study using the same questionnaires that they used, so the questionnaire was not a—but it was the lack of a control group. So I studied the literature on the control groups in substance abuse and there was this national study done, a 47 multi-site study that collected information on 10,000, about 5,000 who got the program, and 5,000 who were not a randomized control but selected from similar schools and communities, but didn't have the intervention program. The report comes out, glossy paper, several reports; the basic analysis in terms of the effectiveness of the program is based on 5,000 children. They collected 10,000, why did 5,000 suddenly disappear? Well, they don't say so in the study in the final published study. They don't say so. I assume they did the analysis on 10,000 and found it was not significant, and therefore they started looking, and what did they find? They found something that did make it effective by dropping out 5,000. The 5,000 that they dropped out were those in the control group who were in a community where there were other substance abuse programs process, they got changes in the control group through other substance abuse programs, so when they eliminated that then the interventions were succe—and I think my 25,000 dollars found more than they found, and that under the new criteria would flunk, because it doesn't have a control group. It is impossible under the privacy laws, under ethical considerations, to have a double-blind randomized trial on substance abuse. And yet those are the criteria that they're rating as getting high ratings. It is just not feasible. There hasn't been to my knowledge in reading a single randomized blind study in which you expose and not expose people—

Levitin: But Charlie, what do you think about the heightened awareness of protections for human subjects? You know, some of the studies that were done 20, 30 years ago couldn't be done now.

Gershenson: Exactly, and that's—

Levitin: And—

Gershenson: —why it's impossible.

Levitin: But what is your view, though, of those additional protections? Do you think that—

Gershenson: Well, we've gone overboard, that's what we have.

Levitin: Okay.

Gershenson: We've gone overboard because of a bad experience in one study in other words, and in New Jersey where I'm working, what—because of a bad experience the state passed legislation, any study done in a school must get active acceptance—

Levitin: Oh, not passive?

Gershenson: —not passive in other words, so it therefore affected the health department people that I talked with there, it affected us in terms of getting parents to actively accept doing these studies. So I think our ability to do these studies are impaired. And definitely what we need is new methodology that doesn't rely on it, and more and more, as you know from your experience, we're going into longitudinal studies, you know, and using that, more comparative studies than randomization. We cannot use the FDA randomized drug trial kind of studies.

Levitin: Right. And what is your assessment of the constraints on using randomization the medical model type study, the randomized double-blind? Do you think—

Gershenson: I think in our field it's mostly inapplicable and we've been over sensitized to the fact that those that do it, scientists, accuse us of being unscientific because we don't have this. The evidence has shown—I'm in a study myself on—an Alzheimer's study at NIH, I know pretty well I'm not in the placebo group in other words, and there have been enough studies that the people in these randomized are very well aware. They may not be aware whether they set drug A or drug B, but they are aware that they're in a placebo or a drug A type of intervention. So I don't think that we can use that model in the ecological reality of what we're trying to study. It just is not feasible, and we need different methodology. Not only do we need different methodology, we have to begin to write things in a way that's understandable. This same multimillion-dollar national substance abuse prevention study at the center said, "See, we're highly successful," comes out with a report. The critical issue is between the control group and the intervention group over time, is there a difference in substance abuse use? Okay? So they have it for tobacco, they have it for alcohol, they have it for marijuana, and they have all three. Okay? All three, and you know what the scales are in the last 30 days, and they use a scale of zero to five, zero for no use one day up to five I think is 20 or more days, et cetera. The difference between the control group and the prevention group—the intervention group was .4, so I called and asked the evaluation unit at the center, "What does that mean? If zero means none, and one means one day, what does .4 mean?" "Oh, that's an average." I said, "I understand it's an average, but what does it mean? What do you tell a Congressman? How much have you reduced substance abuse? Have you reduced it by one day, or four tenths of a day?" What does .4—she could not—

Levitin: You never got an answer?

Gershenson: —she couldn't give me an answer. I didn't press her because she had worked for me when she was at the Children's Bureau. This was frustrating. Then I was at this conference where their new criteria—and in the conference you have now a group of expert evaluators from private corporations who are assigned to each of us to help us. So one came over from the New Jersey agency, and I said, "Before you help us, can you explain what this .4 means?" I said, "You're the experts they tell me." I wasn't being sarcastic. They said they didn't understand it either.

Levitin: Well, Charlie, this is a pretty grim—

Gershenson: So what I'm saying is we're getting lost in our methodology and putting out reports which people cannot understand, including the research community.

Levitin: So you're saying the methods are driving the science, right—

Gershenson: The method and what—more than that, it's not that the methods are driving the science. It's what we're doing is giving greater credence and greater attention to methods than to conceptualization, than to substance.

Levitin: Do you think that has to do with the training that somehow—

Gershenson: That goes back to this academia.

Levitin: Training differently?

Gershenson: I think it absolutely has to do with training. In other words, it's the way we review articles for journals, the articles that get published in journals, and what's being taught, and therefore you take any recent edition of *Child Development* now and you look at this micro studies, its methodology is the big emphasis.

Levitin: How can it be changed?

Gershenson: Well, someone has to sit back and say, "What have we done?" We've created our own monster. We need methodology, we need good statistical analysis, but sometimes a percent can tell us more than our logistic regression data coefficient, particularly if you can't interpret it.

Levitin: Yeah.

Gershenson: That's all. So that to me is my feeling that in the training we've gone overboard on the methodology and we're trying to emulate either physics, astrophysics—we're not trying to emulate even the drug field, but what we're doing is just unrealistic. In other words, we need another Uri Bronfenbrenner on the research side now, on the statistic side saying, "Hey, we need ecological statistics."

Levitin: Do you view anyone or see anyone or know of anyone taking that role today?

Gershenson: Well, there's a group up at SUNY [State University of New York], Albany who's been concerned about that. And it was a Harvard reanalysis of a very famous study—was it all American education—that was done at the time in the '60s—it's James Coleman's—when Congress mandated the study to determine see what was going on in the schools, was it discrimination or other factors in the schools, and the study that led to bussing basically. Ten years later the author of the study indicated that there were faults with the study.

Levitin: Oh.

Gershenson: Yeah. Because it used a regression model, and a group of doctoral students at Harvard at the School of Education simulated what they did in essence, built in the data, looked in the data that showed that had an effect, then did their kind of analysis, and with their kind of analysis it showed no effect. And it showed that the analysis didn't take into considerations the errors in the measurement. What degree of error can the statistical technique tolerate before it washes out?

Levitin: So these are words of caution. But I think we're going to run out of tape soon. But I'd like to hear you, you know, kind of sum up and—

Gershenson: —and say, "Do we need in all cases these kind of elaborate statistical techniques which are difficult to understand, difficult to interpret, and in many cases may be misleading in terms of the finding itself? Do we really know what happens with the basic data when we do all of the transformations that are recommended in statistical texts at the present time?" And therefore, while

the mete assumptions and statistical assumptions and how do they meet the study assumptions and the dissonance between the two is what I think is causing us problems.

Levitin: Yeah, yeah. Okay. We are about to run out of tape. So I will say thank you and—

Gershenson: I would say thank you, too.