## An Oral History of <br> MURRAY ROSENBLATT and STANLEY CHODOROW

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ROSENBLATT: -at least, relative to the math department. I don't know about other departments. Though, in one case I heard a similar representation. It seemed to me to totally wipe out the history of it.

## CHODOROW: Yeah.

ROSENBLATT: Before- Now, what do you think was the object of this? To indicate that be it-?

CHODOROW: Well, I think that the author [of] [give title], Nancy Anderson, was not capable of understanding the intellectual development of this campus or what was going on in research and teaching and so on. And so, she focused on the, what might be called by academics, the external history. The politics, the financial arrangements, the gathering of the land for the campus, the struggle to make the campus, to put the campus here as opposed to down in Balboa Park where—out at Murray Lake; Lake Murray I guess it is called—all of those things which were accessible to her. Whereas, you know, what was going on in the math department or what did people have in mind when they founded the history department or whatever, was something she just couldn't understand. She had no interest in it, she had no understanding of it. That's what we're after. We are after the intellectual history of the institution [University of California, San Diego]. I will say that I think Nancy Anderson's history of the externals was not a very good one. I read it in draft a couple of times and urged Dick [Richard C. Atkinson] to quash it, but he had put too much money into it and he wanted it out. It's not a good history on any grounds.

ROSENBLATT: Well, couldn't he have suggested that she go around to a number of people?

CHODOROW: Well, he did to the degree he could, but she had a timeline and was in a hurry. It was very- She found this project, I suspect, very difficult because she seemed not able to get it right by the standards that were kept around here. She kept making-being told that she had this wrong or that wrong, and I think in the end she cut her losses.

ROSENBLATT: I see. Insofar as the math department- Well, it would be understandable, I suppose, from someone who didn't have much of a knowledge whatsoever of understanding how a department structures itself or grows. Well, she mentioned [Michael H.] Freedman, she mentioned [Shing-Tung] Yau that was the only thing.

## CHODOROW: That's right.

ROSENBLATT: And there was no indication even relative to Freedman or Yau. You know, what they had done or-?

CHODOROW: That's right, exactly. Well, it wasn't exactly— I would have a difficult time explaining to a layperson-you know, understanding myself as a layperson-what both of them did. But that's what I'm struggling to do to a certain extent, but l'm not- We're really interested in something even before, much before Yau certainly got here.

ROSENBLATT: Oh. Well, that's actually what I thought I could supply. [inaudible]

CHODOROW: That's exactly right. Let me explain what we've been doing and what the special circumstances in the Math department are as a result of Stefan [E. Warschawski]'s death. We have been asking founding chairs questions that have to do with the vision that they had, the academic or intellectual vision they had when they came here; what was the state of the discipline, what was happening in the discipline at the time, what was their particular take on it, how did that affect what they intended to accomplish when they came to found their departments in this institution? And then, how did early recruitments of-you know, as you succeed and you fail in your recruitments-how did that affect what they started with as a vision for their department? And our period is from the beginning of the departments, which most of the time is between 1960 and 1968 depending on the department, and around 1975 by which time-well, we'll push it later in certain cases-the departments had accomplished or become corporate units, in effect. And the founding chair and his vision is submerged into a corporate, political life of the department-the life of a normal department. Now, in the case of mathematics where we do not have the testimony of the founder, we are seeking many testimonies of people who came early and who were part of that and who have a perspective on what Stefan himself was trying to accomplish. But also, of course, can comment on themselves as people who were already launched in their careers-many of them quite senior in the department-and who were coming here with their own aspirations in relation to what they had
experienced in their careers, what they had viewed as the state of the discipline at the time. And we're trying to seek their view. And you fit into that as an early member of the department.

ROSENBLATT: Sure. Well, actually I think I did bring along some notes or remarks on the early history of the department-

CHODOROW: Good! Wonderful.

ROSENBLATT: -on those people who were recruited at a certain time. But Warschawski actually came-Stefan Warschawski-in 1963. And I don't know what the difficulty might have been in attracting the chairman at that early point or not. I gather- Let's say-A well-known mathematician called Aberhardt Huff-who actually didn't have a background as a chairman, but actually is a very well-known mathematician-was thought of initially. And I think he must have suggested Warschawski, who had a very good reputation. He had built up a good group at the University of Minnesota. So Warschawski came, and the first year he was here alone. And the next year he began recruiting and I was one of the people.

CHODOROW: So you came in '64?

ROSENBLATT: That's right. At that time there were a number of senior people that he recruited and a number of junior people, actually, the initial list-. Do you want me to give you the initial list?

CHODOROW: Yeah. I'd love to know who they were.

ROSENBLATT: Sure. Well, the initial list—l guess this is in alphabetical order—l'll tell you a little of what happened to them. We didn't— Glenn Baxter who resigned a year after that—

CHODOROW: Was he a junior person? Was he-?

ROSENBLATT: No, he was a senior. A very young, very bright fellow. You know, probability theory. But there was a difficulty at the beginning, which you may or may not be interested in. I don't know.

WESTBROOK: Well, yeah. What do you know?

CHODOROW: That would be very interesting.

ROSENBLATT: Then Clay Perry, who I think was there the first year. Burt [Burton] Rodin, who came with Warschawski.

CHODOROW: So he was a junior person?
ROSENBLATT: At that time, he was a junior person. Helmut Röhrl was a senior person. Myself and Frank [B.] Thiess, who was a junior person. That was the first year. And the year after— Well, I'll just remark about Glenn Baxter. He was very good, actually, and thought very well of himself. But in a certain sense, at least, my interpretation of the events or whatever runs as follows. I think [Jaap] Korevaar wanted to become chairman.

## CHODOROW: Had Jaap already come?

ROSENBLATT: He had already come-

## CHODOROW: Okay.

ROSENBLATT: -and he wanted to become chairman. So somehow there was an issue as to a difference in salary as to whether someone had been promised he had been given the highest salary, and someone had gotten a salary slightly higher and not- In some sense I think Baxter would have had some difficulty already and he was supposedly was going to be recruited by NYU [New York University]. He would have been, except he got into a disagreement over the recruiting, let's say, of his mentor-a fellow called Dansker. And when Dansker was recruited there was a big flap about money. I don't know if I should call it a minor flap in that area. But he felt rather resentful, and I think could be revved up very easily, and he probably had a superexalted notion of himself. And I think Korevaar may have taken advantage of this and circulated a letter about it. I luckily went on-by virtue of Warschawski-not a sabbatical since I didn't have the right for it, but on a Guggenheim [Foundation Fellowship] to England at that time, which was quite nice. I wasn't around the next year when Baxter left. But I think it was rather unfortunate, because Warschawski, I think, was very good. It had later consequences, because I stepped in a few years later on as chairman just for one year because Warschawski had what was called a "heart insufficiency", and I was willing to take on the chairmanship for one year but no longer. Anyway, this was part of the initial hecticness. Various people may have different interpretations of this. Probably Röhrl, if you can get him, would have another interpretation—perhaps similar to mine. Rodin, perhaps a little different as a junior person. I don't know. Anyway, this caused a little difficulty at the beginning. And maybe there were semi-rumblings thereafter, because it
actually did have an effect on a number of us as we were recruited. That is, we had a certain orientation-I did and some of the others-as to how we'll, let's say, select a chairman. Of course, you do want a good chairman to build up the group, but the notion was once you've built up the group sufficiently to have a department to have a certain representation and vote for a two year period for a chairman- Mainly, if I vote a chairman in whom I found difficult, well, I could live with it for two years, but-

CHODOROW: Two years, right.

ROSENBLATT: And if he worked out well, have another two-year term. And that's actually, I think, how it worked out.

## CHODOROW: Right.

ROSENBLATT: I think we knew that Korevaar would become the chairman at some point.

CHODOROW: How long did Jaap stay here?

ROSENBLATT: Well, he did become chairman. Let me see when he was [refers to papers] I think that's indicated here. He did become chairman in the period 1971-73, but I think shortly thereafter I guess there was the divorce and he left to go to, I think, the Vrije [?] University of Amsterdam. But there's a sort of peculiar background in a certain sense, because, you know, many years later on when I had a sort of celebration for Warschawski after a certain number of years and Jaap Korevaar came back. He comes back to visit his children. And I thought it strange: he got up there and-Well, ordinarily you would think at someone's celebration you would make pleasant, sort of positive remarks. Well, I found the remarks very strange. [laughs] But of course, maybe there was a certain amount of background or different orientation-

CHODOROW: How long did Warschawski remain as chair in those first years?

ROSENBLATT: He only— Let's see [consults papers]. He remained as chair from '63-'67; from '67-'68 I took over for him-

WESTBROOK: You took over for one year.

CHODOROW: For one year.

ROSENBLATT: —you know, as chairman. And then Helmut Röhrl thereafter, '68-'71; Korevaar '71-'73; and Don [Donald W.] Anderson '73-'77. So that's actually the sequence.

## WESTBROOK: Right.

ROSENBLATT: I think Warschawski did want to build broadly in mathematics, but it is true that the department he built at Minnesota was very good at analysis and applied mathematics. I think he did try to attract a certain number of people from there-perhaps more than he was able to. He did manage to get Röhrl to come with him, and Rodin as a younger person came too. But let's see, the very next year-I guess, that was the year '65-'66-Errett [A.] Bishop came. Errett Bishop was at U [niversity of] C [alifornia,] Berkeley, and I guess there may have been- What was it? I guess there was a student movement there. And I never could get any detailed reading on what his attitude was toward that, but I gather he was uncomfortable for a variety of reasons. And so he came, and that was a very good addition. And let's see, Ted [Theodore T.] Frankel came, Hubert Halkin, someone called Eugene Lee-who left-and [Stanley G.] Williamson. Then that third year—I guess that was the last year Warschawski came-someone called Barry Eke, who resigned, Jay [P.] Fillmore who is still here, Richard Faber-someone in algebra who resigned. Then a number of people who are still here: [Adriano M.] Garsia and [Ronald K.] Geetoor, Pat [Patrick J.] Ledden-

CHODOROW: He came in '66-'67?

ROSENBLATT: Sixty-six, sixty-seven. And Don [Donald R.] Smith, who's still here. One or two people came but left- [William B.] Gragg and [John A.] Holbrook. But generally, it was a good background in, well, mainly complex variable theory with the addition of people like Garsia and Geetoor. I think that was the strong replacement of probability theory, and they're still here. So, part of the setting of the department was already indicated in some sense. It became broader later on with, let's say, recruitment under people like Anderson. I guess Freedman, I think, actually came as a young fellowwhen Anderson was chairman. And the department has broadened, not simply in analysis but, well, in areas of applied mathematics.

CHODOROW: Was there a difficulty in attracting applied mathematicians here? And was there any resistance from the campus?

ROSENBLATT: I don't think there was. Well, it depends on what you call applied mathematics.

CHODOROW: Okay.
ROSENBLATT: It's defined in different ways in different countries. But I came from an applied mathematics department at Brown [University], for example. Well, there are people, and you know, probability theory itself ranges from quite abstract to quite concrete and quite applied. I think perhaps the difficulty may have been recruiting people into algebra and topology. That was more difficult to do, but they did recruit people in that area, eventually.

WESTBROOK: And why was that more difficult?
ROSENBLATT: Well, I think it's in a certain sense a reflection of the field itself. You know, various fields have notions of prestige orientation, whatever. Initially analysis, I guess, traditionally was a very strong area in mathematics. But then there was a certain period, let's say, in the '20s and '30s where fields like topology and algebra became more popular. And even to this day, even though applied mathematics has become much stronger in the country, applied mathematics some people might regard as a sort of orientation importation from Europe, in a certain sense. In fact, the department I came from at Brown originally was set up by people from Europe. But— Well, I suppose even today if you look at places like Harvard [University], Yale [University] and other places, they are very strong in topology and algebra but perhaps not so strong, in many cases, in analysis. It's a question of orientation. I think now the shift is actually beginning to go back towards analysis. But these vogues I think may play a heavier role in mathematics than they do in other fields-the notion of what's prestigious or not.

CHODOROW: And when a field rises in the estimation of mathematicians as a hot field or a prestigious field, what effect does that have on the way of recruitments in those areas? Do people associate those fields with specific departments and want to go there and not to go to other places? Or does it spread out through the field?

ROSENBLATT: I think there's a bit of that. There actually is a bit of that. Well, later on, for example, I don't know. In the case of-Of course, Freedman was quite interested in having Yau. People [inaudible] Yau. He's a Fields Medal winner like Freedman.

## CHODOROW: Right.

ROSENBLATT: But Yau had a very strong, let's say, personality in a certain sense that one had the feeling- Of course, that's my orientation and others in the department have another one. And there was quite a bit of disagreement over it. I think he wanted to dominate. Not
something— Not appointments in his own area, though certainly marvelously qualified, but I think he wanted to determine appointments in all areas. And we also didn't know, you know, what commitments the administration might or might not have given him that was never clear. And so later on that caused a certain difficulty and schism in the department.

CHODOROW: And he was here for-what? -five years?

ROSENBLATT: Let me just see [consults papers]. It's— I think he came- the time that Halkin was chairman. Yes, that's right. He came in '83-'84 and resigned in '87.

CHODOROW: Yes. So I was about right.

ROSENBLATT: He went to Harvard.

CHODOROW: Yeah. Let me go back a little bit then and follow this up. You've gotten us to '66-'67. What happened after in the next-? You were then chair for a year. And did you get to recruit some people?

ROSENBLATT: Yes. Not as many. Let's see, there's Steven Andrea, someone in topology, Brooks Ferebee in geometry and probability. Those are people who didn't— That actually wasn't in my year. That was the last year of Warschawski. That may well have been. Someone called Carl [H.] FitzGerald in analysis, [Alfred] Manaster in logic; and Michael [J.] Sharpe, you know, who was chairman fairly recently. A very good chairman. I guess- Let's see, in the year I was in, someone called Allen [B.] Altman, John [?] Donald-these were people in algebraic geometry and algebra—they left. John [W.] Evans in biomathematics—he retired in 1994—and in computer science. Someone called [Francis J.] Flanigan in algebra who left. Jon Luke in applied mathematics. And then [Norman A.] "Al" Shenk in partial differential equations is still here. But then they were the arrivals. Of course, they were the people recruited in my time.

CHODOROW: Right. But they arrived the next fall.

ROSENBLATT: They came when Röhrl was chairman. And then Röhrl continued and recruited someone called [Laughlin] Campbell in complex spaces, someone in numerical analysis-they both left. Someone called [David] Golber in the groups who left, someone in topology, and [John] Wavrik who's still here in algebra. And then I think appointments were squeezed.

CHODOROW: Right. In the early '70s things-

ROSENBLATT: That's right.

CHODOROW: -almost stopped, because the university-

ROSENBLATT: That's right. In '70-'71 [Lance W.] Small was still around in algebra, and then Anderson became chairman. The next year there's no indication. In '72-'73 Audrey [A.] Terras came, in number theory, and that was the year that Korevaar left. And in '73-'74 things opened up a bit: [Edward A.] Bender was recruited in combinatronics, [Leonard] Haff in statistics and [J. William] Helton in functional analysis and operative theory-they're still here. John Rice was recruited in statistics but left unfortunately in 1991. And [Daniel E.] Wulbert in approximation theory is still here. So, I guess then things must have opened up in '73, '74-

CHODOROW: Yeah, right.

ROSENBLATT: -because there were quite a number of-
CHODOROW: Let me ask— Do you want to ask something?
WESTBROOK: Well, I have a question that maybe might circle back to the first ten years [inaudible]. And you may have skirted the answer to this, but I was going to ask the question anyway. You had all these new people here, starting in '64, for four years: What was the vision of the department in making those hires? Just to repeat Warschawski's experiment of [University of] Minnesota? Or was it something else?

ROSENBLATT: No, I don't— I think Warschawski's notion was to try to build as good a department as he could have, actually. And he wanted to make it a fairly, I think, broad department.

WESTBROOK: Were there models for that? Or model-Any particular models?

ROSENBLATT: Oh, I see. You mean perhaps it might be a mistake to build too broadly. But well, I think he wanted something that wouldn't be large numerically but, let's say, good people and in a number of representative fields. Certainly, there was a very good start in analysis called "ability theory". But he did probably more to build up in algebra. We all had some interest in algebra and in topology itself. I think the model— I don't— Well, I guess there were various different models, as you can see from my remarks about a few of the Ivy League schools, like

Harvard and Yale. There was a very strong orientation in certain areas, although Ivy League schools like Cornell [University] would have a much broader orientation, actually. And I suppose what happens at a particular school may depend on both the chairman and, let's say, strong personalities in the department as well as the opportunity. Part of the atmosphere at the time, it's hard for me to place myself. And again, I guess the aftermath of Sputnik [Soviet satellite], that might have made things more difficult. I mean, for recruiting in certain areas.

CHODOROW: Plus, the competition was much greater.

ROSENBLATT: I think competition in certain areas was much greater. And I think it is true in a variety of fields, as you said. I mean, a school is very broad and strong in a certain area, that's where they want to go rather than a place where they might be alone. Of course, they might try to encourage people to come by [inaudible] recruit two or three people who work together.

CHODOROW: And in that relation what-? Was the strategy to give one of each? Or was it to get two or three of each in the different areas?

ROSENBLATT: I think the notion would have been to get two or three of each. But you know, it's also— You have this argument even to this day; I mean, different people have different orientations. There's the following sort of attitude occasionally, but not infrequently. You go out and say you want to get the best person in the field of mathematics: my own feeling is that's an ill-defined question, because mathematics is a fairly broad area. And you can argue about who is the best person in the field. I think that depends on what they think is the most interesting field. There can be a wide range of judgments there. But that's actually — I'd say even in the last few years when I was acting in the department, I'd have lots of people saying you want to get the best person in mathematics.

CHODOROW: Which is one reason why you get five hundred applications for every position. Because you don't define what field you're interested in; you're just advertising "mathematics".

ROSENBLATT: That's right. After a while one does- People were willing to say, yes, we'd like to get people in certain areas. But quite often you have that sort of argument. It would occupy an incredible amount of time. I mean- Well, even if you had preferences, I would imagine you'd choose two or three areas and say l'd like to get a very good person in any of these areas. I don't know what typically happens in history, for example.

CHODOROW: They're much more closely defined. It will say something like we want a Twentieth-century American historian. Often we'll go one step further and say we want a social historian, we want an economic historian and that narrows the field quite a lot.

WESTBROOK: We- Well, I'll mention now that we just hired a new university librarian and went through that same sort of dilemma: Well, do we go for the best librarian out there or try to find one that meets our needs? The best position-player, if you will, to tap into that artful metaphor.

## CHODOROW: Right.

WESTBROOK: We opted for the latter strategy in looking for sort of what the needs are of the library.

ROSENBLATT: Well I would think, for example, in history- I have some mild interest in history—or sometimes ancient history and archaeology. I feel it would be rather silly to say who's the best person-

CHODOROW: Exactly. And in fact, one of the things I want to follow up with you was that whether it is the case in mathematics as it is in physics, for example, and in some other field where people in the field actually think there is such a thing as a "best" mathematician. Because no historian could ever think that way. Or a literary scholar or- You know, there [is] a cadre of important people.

WESTBROOK: Well, I think that goes on in all disciplines-

## CHODOROW: Do you?

WESTBROOK: -this notion of-I mean, I think everybody will finally see that there is no "best" [inaudible] person. I totally also think that you can probably find someone who has tremendous expertise in some area, but also a great deal of breadth to go with it. You know, so maybe-

ROSENBLATT: There are occasionally such people, but they're quite remarkable. But occasionally. And of course, on such occasions I'd say yes, we'd like to get a person like that. Usually it's quite difficult. But I mean, these are cases of people who might be regarded, I would say, as the "greatest mathematician of the century" or- Well, one of the stellar people of the
century. And usually quite often it may be a person with some breadth. Sometimes it may be a rather narrow person who has introduced, let's say, remarkable new insights in the particular area. But I think usually even- Well, I don't know. Even with respect to Fields Medal winners. Okay, there are three or four Fields Medal winners every four years, let's say, so there's some notion that there's a spread there. Even with respect to Nobel prize winners: you know, they say that. There's a certain aspect of what you might call the excitement of the local time, notoriety. Sometimes it lasts, sometimes it doesn't last.

CHODOROW: Well, good. Did you want to ask another-any other questions about this?

WESTBROOK: Well, following up on that notion of what was the vision that was driving that early development, what were some of the impediments to that vision to realizing it. Were there any problems other than when you-?

ROSENBLATT: I think one of the impediments-this is my guess, I'm not sure-would be what I've already referred to, for example. I did try to recruit some people in statistics- Well, I did succeed at some point, but some drifted away. There was an attitude there. Many of these people get their degrees in a statistics department rather than a mathematics department, so some of them are- I don't know whether they're insecure or whatever, they feel happy in a statistics department. On the other hand, if you're in a statistics department-now things may be a bit broader-things get to be very narrowly defined, so much so that some of the interesting statistical problems are not in the standard classical domains. So you'll find statisticians don't look at it; people in engineering and other areas-applied mathematics-look at these problems.

WESTBROOK: Right.

ROSENBLATT: And some of them may turn out to be the most interesting problems to people. So this-

CHODOROW: When we had that continuing difficulty at Penn [University of Pennsylvania]Wharton [School] had a department of statistics that was consistently regarded as narrow, and because of its narrowness and its aversion to classical issues, somewhat pedestrian. Well, it's-

ROSENBLATT: I think if you limit yourself to certain, very fixed areas, yes, you have a tendency to reject new ideas.

## CHODOROW: Right.

ROSENBLATT: I mean, I don't know who was in the department at that time. Let's see, when-

CHODOROW: I was there from '94 to '97.

ROSENBLATT: I see. I see. Yeah, so you probably had a pretty good idea of, let's say, the feeling some people had about it. Yeah, I think that's been- I think there's been an effort to broaden the scope in a number of statistics departments, but I think there's still a bit of that orientation. And I think that can happen with respect to other fields too, if they're too narrowly defined. That can be a difficulty.

CHODOROW: Let me ask a question about in your record of who came and who left and so on, in a way your faculty—relative to other departments we've talked to about this early history of this early period-was more in flux. You were recruiting more people and you were losing more people, right? And there was another example in philosophy which recruited a group: they stayed together for a few years, and then it broke up in the '70s and they couldn't replace them in those fields. So they started to- The nature of the department began to change. In your case there seems to have been a lot more flux continually, from the beginning.

ROSENBLATT: Well, I think there's a reason for that. Actually, I don't think there's that much flux at the senior level aside from this initial local upset, which I think was-

## CHODOROW: Right.

ROSENBLATT: But I think it's very definitely a flux with respect to the younger people because there was the notion, well, here are these people coming as assistant prof[essor]s, and in the transition to associate prof we're really going to look at them quite carefully. And so most of the people, I think, left-

CHODOROW: In that- So you were-?

ROSENBLATT: In that- Well, we can just try to-

CHODOROW: They tried to be tough-minded to-

ROSENBLATT: I think there was a tendency initially to be tough-minded. I think later on it lapsed. I'm trying to just see [refers to notes]. Let's see: well, Eugene Lee, a junior person; George Senge, a junior person-that was in '65, '66; no, these were junior persons-Barry Eke, a junior person; Richard Faber, a junior person; [William B.] Gragg [Jr.] in numerical analysishe was a senior person and actually quite good-[John] Holbrook, a junior person. Then [Steven] Andrea and [Brooks] Ferabee, these were junior people; [inaudible] Waltzman and [inaudible] Donald, these were junior people who left; [Francis] Flanigan-

CHODOROW: I remember Donald, actually.

ROSENBLATT: Jon Luke. I think also [Philip] Erdelsky, [David] Golber— I think these were all-practically all junior people. [Glen E.] Baxter, of course, was a-you know, who left after a year-senior person and very good. But you know, Baxter- You see, Baxter was a very sad case in a certain sense. I think really— I don't know what would have happened otherwise. I think he was revved up over, I don't know, whether it was a difference of a hundred dollars or two hundred dollars in salary. But I think there was- I think perhaps he was offended. His mentor was taken into NYU and he could have gone too, but he had this exclusive notion he should have gone, his mentor shouldn't have gone. There was a bit of fuss in the limited part of the mathematical community over this thing. But I think he was probably revved up emotionally, and he may have had a super-exalted notion of himself. He was very good, but-I remember he once came to me—and I thought something was a little off at that point—and he had saidWell, he had proven something that Norberg really had proven in a much neater and more elegant way, and therefore he assumed that he was at least as good as ___ [inaudible] Norberg __ [inaudible]. Well, I thought this was a bit overdone. And you know, he did have very high aspirations; he wanted to solve the four color problem. But, you know, he left. He went for a position with a very high salary at Purdue [University]. But his wife [name?], who was very supportive—a very bright lady herself-I guess after a few years they split, and he stayed on at Purdue. I think there must have been quite an emotional drain on him. I think eventually the claim is after many years he committed suicide.

CHODOROW: Yeah.

ROSENBLATT: So it's a tragic story. And you know, it might have gone that way anyway, but-

CHODOROW: Well, he sounds like a man with a personality disorder of some kind.

ROSENBLATT: Well, some sort of difficulty, anyway. Sometimes people want superexclusivity and, let's say, absolute say-so in all things.

CHODOROW: Right. That's right. Is this—would you think, from your observations-more characteristic of mathematics and mathematicians than it is in most others?

ROSENBLATT: I don't know. I mean, mathematicians can make rather extreme statements. Well, one field relative to another there can be strong biases that arise at times. What happens in history? Well, of course history is a more discursive area, perhaps.

CHODOROW: Yes, that's correct. And it's also- And also you come to history, typically, much later in life.

ROSENBLATT: I think that's true.

CHODOROW: Because many mathematicians—not all, but many—are child prodigies, in effect.

ROSENBLATT: Well, that's true. I mean, it generally may be true that mathematicians do their best work when they're younger, but it's not always true.

CHODOROW: No. No, it isn't.

ROSENBLATT: But there is that sort of fiction. In fact, that's one of the unfortunate, I think, hilarious things about the conditions for the field. [inaudible] single notion is that this will only be awarded to someone below the age of-

CHODOROW: Right, the age of thirty. Thirty-five?

ROSENBLATT: Forty, I thought it was.

CHODOROW: Forty.

WESTBROOK: That's a stipulation of the medal?

CHODOROW: Yes.

ROSENBLATT: That's right, yes.

WESTBROOK: I had no idea. [inaudible]
ROSENBLATT: It's a very hilarious affair because- It's hilarious in terms of this, you know, rather notorious affair. Let's say that probably one of the most startling affairs was this solution of Fermat's problem, actually-the proof of Fermat's theorem. Now this was done by someone who I think-what was he when he did that?-forty-one or forty-two. Now, I mean it's such a remarkable affair-

## CHODOROW: Right.

ROSENBLATT: It's a three-hundred-year-old problem, and to set a condition like that- Of course, one tries to make it up in other ways, but I mean, it's part of the silliness of it.

CHODOROW: As a matter of fact, I will tell you that I picked up the first volume of the Philosophical Transactions of the Royal Society of London yesterday, and one of the very first notices in it was of the death of Fermat-1665-which had been recorded from Paris to correspondence in London. And it brought this back to me. You really are talking about more than three-hundred years ago.

ROSENBLATT: Oh, yeah. I mean, it's a historical fact of mathematics.

## CHODOROW: Right. That's right.

ROSENBLATT: And it's— Yeah, it was truly a startling affair that one would say ordinarily this was somewhat beyond the usual level of the Fields Medal winner.

CHODOROW: Right. Let me ask a question about the relations with other departments. It was obvious that you had to have- Even before they decided they would be a general campus they had to have mathematics in some way.

ROSENBLATT: Sure.
CHODOROW: Certainly, the physicists were interested in mathematics, at least for the training of their students if not for collaboration of any kind. What other-? What were the relationships between the existing departments which, in the early '60s or mid-'60s, included virtually all of the science departments and the two departments of applied science that would become engineering eventually?

ROSENBLATT: I don't know the full details, but it was quite clear there were hassles of the usual things like number of appointments or space-space became-[inaudible]. And in the case of some departments, I don't know, lots of space would be claimed and you would have the feeling they weren't using the space. And well, you can always use the space by expanding certain aspects of your operations. But there would be unfortunate things of that sort. They might occupy a certain amount of time..

CHODOROW: Is it the case, though, that departments like physics regard the mathematics department as a necessary educational enterprise for their students but otherwise pay no attention? [Rosenblatt laughs] Or is there actual consultation and collaboration?

ROSENBLATT: Well, I think there was actually, I thought, for a while-I may be wrong-the joint teaching of a course. There were courses actually taught, basically, for people in physics. I mean, for example there was a course in mathematical methods in physics, you know, and it was taught by a variety of people. I think [Frank] Thiess taught it quite often, [Jaap] Korevaar taught it quite often, Audrey [A.] Terras taught it a number of times. And I don't know, it may still exist. So I think physics was interested from that point of view. And physics would be concerned about, let's say, what sort of topics students who were going into physics were taking their initial calculus courses-what would be the sequence? There would always be discussions, I gather, I think even at an early point but certainly now, I gather, discussions with various departments about a sequence of topics: what you were going to have and [inaudible].

## CHODOROW: Right.

ROSENBLATT: One thing that did arise after a while—and I think that I was against, but it happened-that various other departments, like engineering departments, would begin to develop their own essentially mathematics courses. And of course, this can sort of be a threat to a mathematics department. Ordinarily, I think, initially one tried to keep the courses in the math department. I think during-

## [END OF PART ONE, BEGIN PART TWO]

CHODOROW: -what about the split-off of some people into computing? When did that start? And had that already-? Was that already an issue in mathematics by the time you got there?

ROSENBLATT: That was an issue, and I don't know the full background of that. For that it would have been good to have [Stefan E.] Warschawski. Maybe [Helmut] Röhrl would have a much better feeling. You see, [Errett A.] Bishop—Bishop's initial reputation was in complex analysis and he had a very, very strong reputation. But he got interested in foundations and I guess in some- That's one of the unfortunate aspects of it. Bishop was very good. Actually, he did very good work in the foundations. He felt he wasn't appreciated in that particular area in the field at large, actually. Well, it's— I think it's a characteristic of any discussion of foundations; there are always arguments and no one agrees. But I guess he couldn't accommodate himself to that, so- I think he withdrew after a while, but he did good work there. I suspect he had rather strong feelings relative to computing. I don't know what they were, but apparently he was- The impression I had was he was using some advisory committees, and I think possibly due to his attitude method in, let's say, computing, some aspect of it was taken out of the department. I personally think it was a mistake, but I don't know the full details of what went on. And I don't know, it was rather hard to get into a discussion with Bishop on these things. I mean, it may have been a sensitive area. Eventually, I guess computing I think developed to a greater extent in one of the engineering departments and then split off.

CHODOROW: Well, I remember instances from the '80s when there was discussion about moving people from mathematics into one of the computing engineering departments-such as [Michael L.] Fredman—because their work was more germane to those fields and the math department was less interested in that. And what I was wondering about was, how old was that problem?

ROSENBLATT: Well, I don't think- Well, there are people with— Well, areas in computer sciences-some of them are quite close to mathematics or are mathematical. But there are still people in the department who have interests that perhaps relate to computing in the sense of combinatorial things. I mean, that would be true of-what? - [Edward A.] Bender and [Adriano M.] Garsia. And then we had a very strong person at one time also, who was here for a few years, [Janós] Komlós.

CHODOROW: I knew him.

ROSENBLATT: And he left to go to Rutgers [University]. But he was here for a few years. But you see, with [Michael L.] Fredman- The situation with Fredman was initially he was unhappy in computer science, so he went from computer science to mathematics. Then later on maybe
he felt the situation was slightly different in computer science, so he went back. And it was so. Look, I mean I think a thing which was unfortunate about what happened-the differential in salaries. I think that was a big mistake, you know, to-

CHODOROW: Well, most of us did but-
ROSENBLATT: True. And I think it was done on fallacious grounds, see, because the claim was that salaries were higher in engineering. They weren't. They varied tremendously. But I think some people were very active politically-

## CHODOROW: Right.

ROSENBLATT: —and were able to push it through. So, sure. I mean- Well, someone called [Stanley G.] "Gill" Williamson also in— Well, he went in there. I think partly he may have hadBut I think partly it was the salary too. And when they were having their difficulty, he was willing to serve as chair. So yeah, that's sort of the boundary, right.

CHODOROW: Talk a little bit about students-graduate students. Were you able early on to attract good students and what is-? And what's happened to those students? Math graduates had good academic careers. Have they gone into industry or what have they done?

ROSENBLATT: I think— Let's see, the students I've had most recently— Let's see, they'veA few of them have gone into industry. The very last student I had I guess is actually-Oh, what do they-? What's the sort of position one has in the medical school? An adjunct.

CHODOROW: An adjunct position.
ROSENBLATT: Yeah. He's got his degree in statistics. I think a very bright guy, butCHODOROW: Doing bioinformatics?

ROSENBLATT: Yeah. I mean, I think that's— I think the medical school claims to want biostatisticians, but I think they're not willing— Maybe they have a shortage, but they're not willing to come through with tenure positions.

CHODOROW: No, they do not.

ROSENBLATT: But I think it was a mistake. I actually think it was- I think it's good for the fellow to go into this position as an adjunct assistant professor for a few years. But you know, I think if it just keeps on that way I think he should leave because I think it would be disadvantageous for him, you know. Because that will-

CHODOROW: What about the early students?

ROSENBLATT: Oh, let's see. I guess one of my early— I guess the first graduate student I had may have been in '69 or '70 here. I had graduate students at Brown [University].

## CHODOROW: Right.

ROSENBLATT: I think he actually went into industry. But I think most of the others have gone to academic positions.

CHODOROW: How many students at a time do faculty in mathematics handle?

ROSENBLATT: I don't know, it depends on the area. For example, people in combinatorics may have a large number of students. They may be the complaint of one area relative to another.

## CHODOROW: Right.

ROSENBLATT: Not so much on my part, but l've heard complaints that somehow, it's made easier for them. And also, there's the attraction of saying well, this is very close to computer science, and you can get a job in computer science.

## CHODOROW: Right.

ROSENBLATT: So, they would have a greater number of students while people in other areas most recently had had a number of students, but not that many. For example, probability theory is probably a recently strong group. I guess, let's say the- So that's my most recent student [Anthony Collins] Gamst who just got out of here. He's in-what is it called? -

CHODOROW: Family and community medicine?

ROSENBLATT: Community medicine, right.

CHODOROW: That's where most of the epidemiology is done.

ROSENBLATT: That's right, that's right.

CHODOROW: Typically, mathematicians are made part of a team on these large, complicated grants that they get in this field where they'll have, you know, half-a-dozen faculty and they'll have these adjuncts. And each one has a particular role to play. And they need the mathematician and don't want to make that person a tenured member of the faculty because persons in that position are not contributing in a direct way to the academic enterprise.

ROSENBLATT: Well, I don't think that's-
CHODOROW: But that's what happens.
ROSENBLATT: Well, I don't think that's true. I think- Well, for example— I have an example in someone called lan [S.] Abramson, I think a rather bright fellow. He hasn't advanced that far. I think part of it is his personality. He's done a lot of work for the people in the medical school, but I think they've never given him enough credit because he's always at the tail.

CHODOROW: Right. That's right.
ROSENBLATT: And you know, he should have tried to write up, let's say, some of the stuff separately. But that's a difficulty with the medical school. They need biostatisticians.

## CHODOROW: Right.

ROSENBLATT: In fact, they may have difficulty with some of these visiting groups because they don't have them. But somehow, in spite of all claims they're not willing to invest enough in them.

CHODOROW: Well, at [University of] Penn[sylvania] they had this difficulty and we eventually pushed the dean to create a department. And he pulled-As a result, there were people like this around the medical school attached to various departments as adjuncts, and they pulled them together-the better ones; the ones who were not just sort of hacks-into a department of bioinformatics and biostatistics.

ROSENBLATT: Sure.

CHODOROW: And the notion was that in that context you would get better appointments and you would get theoretical work that was important to them.

ROSENBLATT: I think that's— I think that's true, and it's— Well, it would even be reasonable possibly to have it in a mathematics group if it was sufficiently broad enough, but you have to have- We do have a few people but, I mean, there has to be, let's say, reasonably decent relations. You have to give people credit too.

## CHODOROW: Right.

ROSENBLATT: I think at University of Washington they have a bio- Well, they have a biostatistics department, an epidemiology department and I think they have a fairly good reputation.

CHODOROW: [To Westbrook] Are there other things? Do you think that we've forgotten anything? Very good. Would you be willing to allow us to have copies of this data that you have put together?

ROSENBLATT: Well, I- Let's see, this is— I had a copy of— This was the year I was chairman. I don't know if it's of any value, but-

CHODOROW: Oh, sure. This is always of value. And we can cull the material that is of noYou know, that is no longer- That we have duplicates of and so on.

ROSENBLATT: Right.

CHODOROW: But you never know until you look.
ROSENBLATT: Then there's something here where they give the field, but somehow they've left me only as a statistician. But I have had interests in probability, so in my scrawling way I'll put it in. Yeah, actually this is part of a history they compiled. I just- You know, the day before I thought I'd look at the website of the math department.

CHODOROW: And this comes off of that site?
ROSENBLATT: Okay. So I thought this would remind me. Maybe it's of interest to you-
CHODOROW: Oh, yes. It is definitely.
ROSENBLATT: Okay. And well, it's— I'm sure it hasn't been— I'm sure there's no objection to it. After all, if it's on a website it's available to everyone. So-

CHODOROW: Yeah. There's no problem. Well, good. Thank you. It's a very interesting thing to do that no other department that I know of has done.

ROSENBLATT: Oh, really?
CHODOROW: Yeah. And we didn't know to go look-
ROSENBLATT: I see.
CHODOROW: -for this because no other department that we know of has done it. It's a wonderful thing, it really is.

ROSENBLATT: Yeah. Let's see, I may also have a listing of other people. Then it depends on whether the person himself is interested in having a website or not of greater detail or lesser detail.

CHODOROW: Right.
ROSENBLATT: But— Let's see. I don't know that I've given that impression, but really the math department was a good, strong department. And the notion which I got—and which this lady appeared to have gotten [Nancy Anderson, author of UCSD's historiography]- -was that there were two figures in the entire history of the math department.

CHODOROW: Right.
ROSENBLATT: I thought that was totally absurd.
CHODOROW: Yeah, it is.
ROSENBLATT: And I'd—By the way, I don't know if it's of interest to you, one of the persons from whom l've heard a similar representation [name?]-which I found rather astonishing, because she's a person who served quite often as the historian for Scripps [Research Institute]-she said it was an utterly distorted history.

WESTBROOK: Is she at Scripps?
CHODOROW: Yeah. We'll talk to her.
ROSENBLATT: I see you're not surprised at all.

CHODOROW: I'm not surprised at all. Not at all. She— Nancy Anderson's judgment about who was important was based on a-well, what l'll call a haphazard and accidental notion of fame. So the two Field prize winners that you knew, that was by definition fame. And the Nobel prize winners in the other departments and so on, these are the people who were, by definition, "important" and all the other people were not.

ROSENBLATT: Well, it looked as if possibly in some departments she might have gotten slightly better information. I didn't read it. What was your impression about history?

## CHODOROW: She had no understanding of it.

ROSENBLATT: No understanding of it. So your impression is that pretty uniformly throughout the whole-

CHODOROW: She moved through-
WESTBROOK: She did that almost with every department. [inaudible] track people that have little awards attached to their name, like Fields, but even in literature she went more with two or three people who just seemed to have the greatest fame. I mean, you know-

CHODOROW: Right. Notoriety or fame.

WESTBROOK: Yeah.
ROSENBLATT: Yeah, but how could she even determine-? Well, yes Fields is looked at as a-

CHODOROW: It was on her-She is quite ignorant of these things, and she- So she was easily swayed by either hearing about something or reading something.

WESTBROOK: Right.
CHODOROW: So if she went and found some article that dealt with the work of somebody in literature, that person obviously was a famous person.

ROSENBLATT: I see.

CHODOROW: Whether that person, in fact, did work that was important or had an effect-an important kind of effect on the department was something she could not [-__?].

ROSENBLATT: What was her background, actually?
CHODOROW: She had actually written what was regarded as a reasonably good history of [Ulysses S.] Grant and [Robert E.] Lee and had done the research to do that. She was kind of an independent historian and had done journalism as well. Now, David McCullogh is an independent historian and has done some very interesting work.

ROSENBLATT: Yes, but he-He's done- Well, I don't know. I haven't read her. But he's done a rather decent-I read this work of his on [Harry S] Truman, which is-

CHODOROW: Right. Well, the first thing I came across was probably his best as a historian, which was The Great Bridge which was about the building of the Brooklyn Bridge.

ROSENBLATT: Oh, I see.

CHODOROW: And it's really a remarkable piece of work. It was both a technological history, an economic history, a history of the city-

ROSENBLATT: Sure.

CHODOROW: -a history of the social structures which supported the building of the bridge-what happened as a result of it. It was quite a terrific piece of work. And she was in that genre of a person who was independent of any academic institution and had written a wellregarded history.

ROSENBLATT: Sure. By the way, I didn't mean to give the impression that the math department was riven by dissension only.

WESTBROOK: No, no. Not at all.

ROSENBLATT: But I imagine these sorts of difficulties arise in all departments.

CHODOROW: That's right. Absolutely. And very often- What's interesting and that here that you have revealed about Stefan [E. Warschawski]'s role in being [inaudible]?

ROSENBLATT: I think he was, by the way, very important because- I tell you that because I think he and his wife [llse Warschawski née Kayser] - It would be worthwhile even speaking to his wife.

CHODOROW: Ilse [Warschawski].
ROSENBLATT: Ilse [Warschawski]. They played a very strong role in the atmosphere of the department. I mean, some aspects of it—in spite of it—a bit like a family in the beginning. And it's a large department today. Yeah, it gets together but there's not the same sort of feeling one had initially in spite of, you know, this-

CHODOROW: So his role- One thing that was interesting was that he was chair, really, for four years.

ROSENBLATT: Yes.

CHODOROW: And one has the image of his role in the department having lasted for years and years and years.

ROSENBLATT: But it did.
CHODOROW: And it did, in effect, in an unofficial way.
ROSENBLATT: In an unofficial way. Because I felt his opinion and his experience did play a role for a long time. And as I say, heavy aspects of it that are-

CHODOROW: Was he regarded as a very good judge of mathematicians in a variety of fields?

ROSENBLATT: I think— Well, I think he was certainly in areas of analysis. And even in other fields he would I think- Well, he would not take just anyone's say-so. He would really try to investigate on his own and rely on people with whom he had some confidence in. So really, his role was really much, much stronger than you would imagine.

CHODOROW: From the fact that he was chair for just a few years.
ROSENBLATT: That's right. That's right. I'd say it has extended in a certain sense, even well through the '70s.

CHODOROW: In the '80s he was a very elderly man who came to the campus, I think, every single day-

ROSENBLATT: Right.

CHODOROW: —and was working I think with Burt [Burton Rodin].
ROSENBLATT: And he was working with him. Their areas were similar. And I gather he was quite the mathematician in his specialized area, and I think a very sober person. Well, I liked it. It was great for me. I was able to get away that second year-well, we went to England.
Because-Well, given the first year, I can imagine-I really think that probably he had had a past history of-

CHODOROW: Some heart problems.
ROSENBLATT: -heart problems, but I think it must have had an effect on him I would say, this maneuvering.

## CHODOROW: With [Glen E.] Baxter?

ROSENBLATT: Well, with [Korevaar] probably.
CHODOROW: Yeah, with [Korevaar].
ROSENBLATT: I mean, I think Baxter had his own difficulties, but may have been some innocent tool in that.

CHODOROW: Right.
ROSENBLATT: In a way it was- What I thought was funny- Well, he at this great urge of Jaap Korevaar -you know, who is a mathematician-to become chairman. But he became chairman when [Paul D.] Saltman was vice-chancellor.

CHODOROW: Yes, the first few years in.
ROSENBLATT: And he just wasn't the type to get along with Saltman at all. So you know, I think his time as chairman was-

CHODOROW: It was quite miserable after all.
ROSENBLATT: Well, yeah. It wasn't— Possibly with— You know, maybe with another vicechancellor. But you know, here was this apparently a fellow who conceived of himself as the suave, European type. And with Saltman, I think it-

CHODOROW: Saltman was not exactly of that type. Very interesting. Well, thank you.

ROSENBLATT: Sure.

CHODOROW: We appreciate it, and it's more information about a very central department that we will keep pursuing.

ROSENBLATT: Yeah. And I hope, you know, you get reflections of other people which I'm sure may be different. You know, my interpretation of what took place may not be the interpretation of others. So-

CHODOROW: Well, thank you.
ROSENBLATT: Sure.
[END OF PART TWO, END OF INTERVIEW]

