

Dr. Bruno Anthony (NIMH 1986-1989)

Interview with Dr. Bruno Anthony, associate professor in the Department of Maryland. Dr. Anthony is a former member of the Laboratory of Psychology and Psychopathology of the NIMH Intramural Program. The interview is being held over speakerphone in Bethesda, Maryland on December 6, 2002.

Interviewer: Dr. Ingrid Farreras of the Office of NIH History.

Farreras: I'd like to start by thanking you for agreeing to share your experiences and recollections of the lab with me.

Anthony: Sure.

Farreras: Before we talk about your years at the lab, I'd like to know a little bit more about your background and how you chose a career in psychology. I know you did biology and psychology as a double major at Penn.

Anthony: Right. Well, let's see. My family is a fairly scientific family. My father is a child psychiatrist and I have two brothers-in-law who are biochemists. I'd always been interested in biology through my schooling, and when I left high school I was contemplating going to medical school. When I entered Penn I began in biology alone, and over the course of the time I was there, I became involved during my last couple of years heavily

with the Psychology Department and with particular faculty members there who really influenced me. I really became excited about psychology so I added that as another major and then really decided that that was where I wanted to continue.

Farreras: Were there any particular people at Penn who influenced you?

Anthony: Yes. Actually, at that time he was just a graduate student, but he became one of the major figures in the field of cognition, Jim McClellan. He went out to San Diego and was incredibly influential. At that time he was developing this distributed-processing view of cognition and I really started to become interested in attention. I did experiments with him and for him, and a graduate seminar with him and I became really focused. I kept in touch with him. I think that he was probably the main influence on me.

Farreras: Was he the one who encouraged you to apply to Columbia for further work?

Anthony: Well, I remember having a conversation with him when I was a junior and saying, "I really think about not going to medical school anymore. I really want to go to graduate school in

psychology.” And he would say, “That’s great. I want to tell you, you’re not going to make much money, but I really encourage you to do it.” So, yes, he was really the influence on me in doing that.

Farreras: Were there particular programs that he encouraged you to apply to?

Anthony: No, I was pretty naïve about applying to graduate school. Actually, what happened was I took a year off between college and graduate school and worked in St. Louis, where I grew up. At that time NIMH was in the middle phase of a big program to try to study risk factors for later onset of schizophrenia. And there were a number of projects around the country using different risk populations, and the one at St. Louis was using the children of parents with schizophrenia or with an affective disorder and with physical disorders and comparing them. So I got involved in that project when I was in St. Louis for that year and published a paper and really enjoyed that. During that year, I was trying to decide what kind of psychology I wanted to go into. My interest in developmental psychology was pretty high

at that time for several reasons. One is just that my father's a child psychiatrist, and I'd had a lot of experience with children in different settings. In high school I had done a lot of tutoring with kids in the inner city and I also taught nursery school with my mother for a while. My mother was a nursery school teacher. So my family was very child oriented, and I became really interested in that. Working on this project was also influential in that way. So what came together at that time was an interest in cognition and attention particularly. And, in fact, the work I was doing in St. Louis had a lot to do with early attentional functioning, too, so that made me want to apply to programs just around developmental psychology.

Farreras: Is this common? I noticed your degree is in developmental psychology and psychophysiology.

Anthony: Well, that occurred because, when I got to Columbia, I teamed up with a faculty member who was a psychophysicologist, and since I was interested in biology this seemed like a godsend. Here was a place where I could actually combine my interest in biology plus developmental psychology plus attention, so I

immediately started working with her.

Farreras: Who was she?

Anthony: Her name was Lois Putnam. She had just joined the faculty the same year that I came to graduate school, and she was a student of the person who really became my main mentor in the area, Frances Graham at the University of Wisconsin. So that's the connection with Wisconsin. But that was really great. I just fell in love with the whole area and I did some really interesting work at that time around psychophysiology. So I became a psychophysiologicalist and loved it. Then I applied for one of these NRSA post-doc grants, which I got, and took that to Wisconsin and worked for three years as a post-doctoral research associate with Frances Graham there. And actually, what happened there was great. It was one of the best times, really productive, and she's just an incredible person, a wonderful researcher. She's really probably the most influential person in the field. What happened during that time, interestingly, was that we moved our lab out from the psychology area – near the hospital – to what was called the

Waisman Center, which is a center for mental retardation and child development and developmental disabilities, one of the centers that was set up around the country in the '60s by the Kennedy administration. There's one here in Baltimore called the Kennedy Krieger Institute, and there's one in Nashville and at UCLA. But the idea was to bring together basic scientists and clinicians to work on clinical issues and that was exciting to me. During that period I finally became interested in clinical issues, how to apply my interest in attention and development to working with people with those kinds of problems. After three years there, I then applied and did a re-specialization in clinical psychology, three years through the regular clinical program at Wisconsin and then an internship year at Yale.

Farreras: Do you receive a special certification as a result of respecializing?

Anthony: They called it different things. I think my actual piece of paper said something like post-doctoral in clinical psychology, but essentially it was that you took all of the basic clinical courses in addition to anything that you hadn't gotten which they

believed was important in your first degree. And then you had to do seminars and clinical hours as a clinical student and then internship.

Farreras: And always focusing on child psychology?

Anthony: On child[ren] there, although at Wisconsin there wasn't a whole lot of child emphasis. I worked on my own way, really, to get the clinical experience. So I worked in Head Start, the eating disorders unit and things like that. I had to find my own program in terms of clinical aspects there. But I was also working in the Waisman Center, too, which was sort of getting experience in terms of research at least.

Farreras: And once you finished your internship at Yale, what was the connection with NIMH?

Anthony: That was marvelous. Actually, before I went there, I had talked with Connie Duncan at many SPR meetings, the Society for Psychophysiological Research meetings, which I went to regularly. She actually invited me to come give a job talk to the lab before I went on internship, and they were very interested in me coming at that point. But I felt, for my career, that it would

be best if I did the internship right there. I tried to work out something in Washington with Children's Hospital, doing some part-time internship here and still working in the lab. I think I talked with Al Mirsky, but he eventually said, "You know, do this year." And actually, that was a very important year. I really loved being at Yale. It was a wonderful place to learn, and they are very research focused. There's a special program they have there which is funded by Merck money, which was called dual disabilities, so developmental problems plus other psychiatric problems, and they funded a psychiatrist and a psychologist. So they funded me to do a day of research there as well as do the clinical internship. So I sat through a seminar series and I did research on Tourette's disorder, actually in the overlap of attention disorders and Tourette's disorder, with Mark Reynolds, who now is the chair of child psychiatry at Hopkins, and it was a great year, it really was. I learned a lot clinically. I learned a whole lot in terms of developmental psychopathology, so a great year.

Farreras: So you already knew Connie Duncan before arriving at NIMH.



Anthony: I did, just through meetings. We had similar interests. I had done initial work in event-related potentials as a graduate student and worked in areas that she was interested in, so we talked a lot and then continued to talk. So what happened was that Yale wanted me to stay there, and I was going to stay there. At that time I wasn't sure about that, well, the way I was going to come to NIMH was to be funded by a joint effort with Johns Hopkins at the time. Al had formed this collaboration with Shep Kellam, who was the chair of the Department of Mental Hygiene in the School of Public Health at Hopkins, and they were doing a long-term longitudinal study – they were just starting it, actually, at that point – following an epidemiological cohort of kids in the Baltimore school system. Al wanted to do early attention testing with them and then follow them. So initially I was going to go and be a post-doc with Shep, but at that point I was a little tired of being a post-doc, so I wasn't so interested in that. So I decided I was going to stay at Yale. But then Al came up with a senior staff fellow position within the lab and so at that point I decided I'd go there.

Farreras: What would the position at Yale have entailed?

Anthony: It would have been a year of being something they called a research associate, and they promised that I'd be a faculty member after a year, but you know about promises. But I think that probably would have occurred. But going to NIMH was just like everything else because it combined everything I wanted to do. It was a wonderful lab opportunity, I could continue the psychophysiological research, and I was doing very interesting work with this collaboration with Hopkins on following children and looking at their early attentional functioning and looking at the later outcomes, which just seemed like an ideal thing. I couldn't think of anything better at that time.

Farreras: So you were still able to work on that collaborative project with Hopkins?

Anthony: Right, I coordinated that project while I was there.

Farreras: And at the time, in the lab, did you have much access to clinical patients? Because I've heard of necessary collaborations with clinical components of both NIMH and NINDS in order to have

access to patients.

Anthony: No, that was difficult. I was doing this large project looking at dysregulation, comparing children with ADHD, Tourette's disorder, and children with both of those disorders, and normal controls and looking at a wide range of different functions, trying to understand the differences in attentional functioning between those different groups. I was doing event-related-potential work and startle-modification work and regular, neuropsychological testing, so it was a long, three-day protocol. But I had to recruit subjects from outside. It was a lot of work to do that. I made contacts with the consumer groups, Tourette's Syndrome Association, the CHADD, and was able to get subjects, although the problem with subjects there is that they're very specialized kinds of subjects, people who are very interested in doing experiments essentially.

Farreras: Self-selection.

Anthony: Yes, a selective kind of patients, generalizability is a little bit difficult.

Farreras: So when you came, you basically had your own research area

that you could follow?

Anthony: Yes, absolutely.

Farreras: You weren't expected to work with somebody or on a particular project, for example Al Mirsky bringing in people to work on a line of research he had envisioned for the lab.

Anthony: Right. But I also collaborated with Al on the Hopkins project, and with Connie, too. What Al and I did was develop this battery of neuropsychological tests and look at different aspects of attention. He had developed some with adults and we worked together to develop one for children, and that we did at Hopkins. But then the project at NIMH was my own project, which Connie was involved with somewhat but it was really pretty much individually my own.

Farreras: What was she working on at the time?

Anthony: She essentially had a protocol which she would run with a variety of different patient groups. It was this oddball paradigm looking at [recording not clear] and looking at the differences in those later cognitive-related ways of event-related potential in different patient groups. She was collaborating with Norm

Rosenthal at that time, looking at seasonal affective disorder patients. I think she was looking at bipolar patients with Bob Post and, but I know those were two big collaborations she had as well as her own. And she was getting schizophrenic patients, too. I'm not sure whom she was collaborating with on that. But she had a number of different collaborations.

Farreras: You mentioned Bob Post [from the original Adult Psychiatry Branch]. It seems there were collaborations with different Branches then?

Anthony: There were, but it was difficult. The child situation was that – Judy Rappaport is still the person there, The Child Psychiatry Branch did not get along well with the Psychology Branch, and there was some competition and things like that going on, so it was difficult to make collaborations there.

Farreras: I hadn't heard anything about this particular branch, but with some of the other ones, especially like the Adult Psychiatry one, I had heard that there was tension between the psychiatrists and psychologists, the perennial M.D. vs. Ph.D. distinction, and that early on it was played out by psychiatrists wanting or expecting

that psychologists do all the mental testing for them, until that was stopped and would not do testing for others unless it was by contract. Did you have any similar experiences?

Anthony: No, I never felt that much. I thought it had more to do with territorial issues around the nature of the research more than anything else: “the ADHD research is being done in this lab”, and “this should be the only lab that it’s being done in”, that kind of thing, and not so much in terms of who was doing it.

Farreras: Okay, I see. So when you arrived who else was in the lab?

Anthony: Not too many people. Let’s see, Ted Zahn, Loring Ingraham, Seymour Kety, Connie Duncan and Al, and then there was a woman named Eva Pragay. But she wasn’t really employed by the lab, she had a grant, I’m trying to remember where it came from...

Farreras: I thought Al brought her down from BU?

Anthony: No, no, she came from Indiana – I think Indiana – and she eventually came with her own grant, so she was being financed by herself there. She was interested in behavioral genetics and doing twin studies in Europe with event-related potentials – she

was really coming to collaborate with Connie. And I don't think there was anybody else. That was about the extent of it when I was there.

Farreras: And everybody worked on their own projects?

Anthony: Well, Loring Ingraham was working with Seymour Kety on the Swedish sample, and then he also worked with Al on the Israeli book. Ted definitely had been there for years and definitely had his own shop. He was very collaborative; he collaborated with a whole lot of people. It's funny that what you do is, you have an expertise with a measure, and then you just collaborate and do that particular protocol and measure with a whole bunch of different patient populations. It's kind of what he was doing. But he did interesting work, and it was very, very careful, methodical work...

Farreras: Was Monty Buchsbaum there?

Anthony: No, he had left already. In fact, had he gone to NIAAA maybe, to the Alcohol Institute?

Farreras: I thought he was in the Biological Psychiatry Branch?  
Switched there from the Psych Lab?

Anthony: Yes. But I talked with – there was another woman named Janet Johnson who was sort of in [?] NIAAA and there was talk of doing some collaboration across... I thought that she was a student of his; that's why I thought he had moved to NIAAA.

Farreras: Oh, I see. I don't know but I can find out. Well, from my perspective it seems the height of the lab was when it had about 80 people and by the late 1970s the original six sections – Aging, Animal Behavior, Child Development, Perception and Learning, Personality, and the Section of the Chief – had pretty much dwindled to the main Section of the Chief...

Anthony: Yes. But Connie had her own section.

Farreras: She did? Do you know what it was called?

Anthony: I'm not quite sure, the name had "event-related potential" in it.

Farreras: And the other people you mentioned, did they also have their own sections?

Anthony: No, no.

Farreras: So Connie was the only one with a section, and everybody else worked under Al?

Anthony: Yeah, but people were well staffed with research assistants. It's



unbelievable when I think about it now, but I had two and a half, three research assistants going, it was wonderful. It came through different mechanisms, but it was great.

Farreras: Was there any contact with the former members of the psych lab, like the neuropsych people?

Anthony: Well, you know, Mort and Al were great friends. I think that they talked a lot but as far as direct collaboration, I don't think so.

You know, I think what was happening was that I think the writing was on the board that things were going to change. After I got there, there was always concern, every year, about what would happen, that the budgets were being cut, and they were cut during the time when I was there. And I think there was always the need to justify the existence of the lab in some ways. And it seemed to me that the way that that was seen as happening was that you would need to collaborate more across different labs.

Farreras: Did you get the sense that this particular to this lab, the psych lab, or was this across the board?

Anthony: Oh, I think it was a movement away from behavioral research, really, that was occurring even then to more biological \_\_\_\_\_-related research. I think that there were changeovers in the... - what was his name, the guy who was director of the intramural program when I was there...

Farreras: Fred Goodwin?

Anthony: Fred Goodwin actually was somewhat supportive, but then what happened, Steve Post took over, and I think that he was less supportive. I think what happens in the government is change happens slowly, then it suddenly happens. It seemed to me that there were these little signs that were going on all the time that resources were being removed. It was each year you'd keep going at the same funding level, and then suddenly, I think the year after I left, things changed radically.

Farreras: So you're talking about a conscious shift away from behaviorally oriented research...

Anthony: Yes, I think that the notion was they wanted to move more to biology. Cognitive neuroscience became more of a buzzword than neuropsychology.

Farreras: That early already...

Anthony: Yeah, I think so. I'm trying to remember, maybe it's more than a couple of years, but at least two or three years afterwards when Leslie Ungerleider came, I remember that was ...he could begin a section.

Farreras: Did any of the research change during the time that you were there in a way that reflected this shift toward a more biological approach? Or did that happen more after you left?

Anthony: Yeah, I think so. I think there was this little bit of tension between the kind of psychophysiological approach, which was the event-related potentials and the more traditionally psychophysiological work being set up against the imaging, because imaging was just at the beginning at that time. And I think what probably happened – I'm not sure – is that people saw imaging as the more direct way to look at things rather than through event-related potentials.

Farreras: Interesting. Now you were here until 1990?

Anthony: Yes, I stayed on until January of '90. Al paid me through that time, and then I went to Maryland. And I'll tell you the reason,

partly, why I was looking... Although they were pretty positive about my future there, there were a couple of things... One was that it was difficult. I felt kind of isolated there; the lack of collaboration was difficult.

Farreras: With people who were also doing that same type of work?

Anthony: Yeah, or who were just doing child psychiatric research in general. There wasn't anybody. And I also felt that I always wanted to be in a more academic setting with \_\_\_\_\_ and trying to \_\_\_\_\_. I thought that it would be easier to do further research just in terms of being in a different setting, with access to patients. It can be a pretty isolating experience to be in NIH. Some people like that; you sit in your little room and you don't often see too many people. But it's a wonderful place to get a lot done. It just takes a certain kind of person to do that for a long period of time.

Farreras: But you were still collaborating after you left...let me see, as a "guest researcher"?

Anthony: I was, we kept writing. We were writing papers from the Hopkins study, that kept going and continued to be a

collaboration. It continues to be to this day, actually.

Farreras: So was the academic route what you expected it to be?

Anthony: No, it was not. You learn when you go places. I went to a place where I had never before been, where there wasn't a whole lot of research emphasis. At Wisconsin, Columbia, Yale and NIMH, everybody is doing research and you have a large infrastructure to support your doing that. But at Maryland at that time, there was none. You had to do everything on your own, which could be difficult, and it took me a long time to get established doing that.

Farreras: Yes, I understand what you mean. Well, is there anything I am missing that you want to add that that might be relevant to the development of the lab or the people who were there, the type of research that was being done...

Anthony: I just learned a whole lot there. I think that you learn to be an independent researcher there, because you have all the opportunities to do it. And you have to be very self-motivated, very motivated to keep going.

But as far as the lab goes, I really felt, when I was there, that it

was a little bit shaky. But they all survived; everybody survived there.

Farreras: But you already had the sense that it was shaky by the time you got there?

Anthony: Yeah, I mean, think about Al. My feeling was that he really didn't care too much about power and about having many resources. A lot of lab chiefs are very into that, and he was never really that way. And whether that was a good thing or not as far as the lab goes...

Farreras: A similar comment I've heard about Herb Weingartner when he was acting chief of the lab before Al took over, was that in Herb's case, he was so focused on his own research that he wasn't really looking out for the future of the lab and trying to make it strong compared to other labs.

Anthony: Yeah, I think he was willing to keep things going a little bit, but I'm not sure that there's any more he could have done. But I think that he's certainly somebody who's much more of a conciliatory person rather than someone who's going to make demands and things like that.

Farreras: Right. And, in fact – I seem to find a discrepancy in people’s opinions on this but – some people see that the disintegration of the psychology lab as a loss to the field, because psychology was no longer represented as a major field in the institute, while others, like Ted Zahn, think that this was actually a good thing because it meant that you had these individual psychologists then branching out and working in other labs and branches, in a sense providing a common voice representing psychology and informing others about psychology, which wouldn’t have happened if you’d just had an isolated psychology lab with no collaborations with other labs.

Anthony: Yeah, you know, I think the ideal thing would [consist of a] strong presence and also to collaborate. That’s what you want to do. I understand Ted’s point, and there are a lot of people who believe that, but I think that it does lose something for psychology when you do it that way, you get integrated.

Farreras: Yes, then you’d have the best of both worlds. Well, is there anything else you’d like to add?

Anthony: No. I think that sounds about what I wanted to say.

Farreras: Okay. Well, what I'll do is send you the transcript once I'm done editing it and if you think of anything else that we're missing or that we haven't touched upon, feel free to add it to the transcript.

Anthony: I will.

Farreras: Wonderful. Thanks so much for all of your time. Bye.