

## **Interview with Frederick N. Martin Ph.D., Lillie Hage Jamail Professor in Communication Sciences and Disorders, The University of Texas at Austin**

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### **Topic: A Few Moments with Dr. Martin**

**BECK:** Good morning Fred. It is an honor to speak with you.

**MARTIN:** Hi Doug, nice to speak with you too.

**BECK:** Fred, I know you have a colorful and inspirational history, and I feel like I know you as I have read literally thousands of pages of your work over the years. You have been involved in so many aspects of audiology, that it's difficult to know where to start....so let's start with your own college experience, if you don't mind?

**MARTIN:** I had a pretty lackluster two years as an undergraduate and so I joined the Air Force

back in 1951 during the Korean War. After finishing a four-year enlistment I was readmitted to college, which was a wonderful second chance for me. It hadn't taken long for me to realize that if I was going to have any kind of professional life I'd need an education and so I became a serious student. I thank my wife, Cathy, for her support and encouragement during those years.

**BECK:** Were you able to go to school during your military service?

**MARTIN:** I took a few courses at local colleges but didn't swing into high gear until after discharge. It was then that I met Mark Ross, who has been my colleague and close friend for nearly 50 years. I have never stopped wondering at his scholarship, dedication to audiology, and commitment to those with hearing loss. Mark and I worked part time together as "speech and hearing therapists" at a hospital while working on our MAs, but when that was finished Mark went to Stanford for his PhD and I was off to become a clinical audiologist.

**BECK:** And where did you start practicing?

**MARTIN:** I went to Little Rock, Arkansas. I was the only audiologist in Arkansas and may have been the first in the state. I worked for the Arkansas Rehabilitation Service and the Arkansas School for the Deaf and was a contract audiologist to the local VA hospital. I did this for two years, and then I was invited to join an otologist in private practice and where I continued my contract work for the VA. I did that for six years. While working as a clinician I got interested in research and carried out about a dozen projects, which were published, but I could see the need for more training and education. So I returned to City University of New York for my PhD and I completed that in 1968. While I was working on my PhD, I taught at Brooklyn College and was made an assistant professor there. In 1968 I moved to The University of Texas at Austin, where I have been ever since.

**BECK:** Okay. So you've been at The University of Texas 36 years?

**MARTIN:** This is my 36th year.

**BECK:** So you must be getting used to the place.

**MARTIN:** Yea, I'm finally getting the hang of it.

**BECK:** The very first textbook I bought in audiology was in the early 1980's. It was actually your orange or yellow covered "Introduction to Audiology."

**MARTIN:** That sounds like the first or second edition. John Clark and I are working on the ninth edition of that book at this time.

**BECK:** What year did the first edition come out?

**MARTIN:** The first edition came out in 1975, and then there were five editions of the companion "Introduction to Audiology: A Study Guide." Then John Clark joined me as co-author of the seventh and eighth editions of the intro book and the CD-ROM "Interactive Audiology."

**BECK:** And I know you have an amazing number of other books you've edited, authored and contributed to as well. Can you tell me some of the titles?

**MARTIN:** I was co-editor, with Larry Bradford, of "Audiology: A Journal for Continuing Education" for a number of years and a series of ten books called "Remediation of Communication Disorders." I also edited "Medical Audiology," "Pediatric Audiology," "Hearing Care for Children," and "Effective Counseling in Audiology," these last two with John Clark. I co-edited "Communication Sciences and Disorders: From Science to Clinical Practice." That book is unique in that all the authors were faculty in my department and we are now working on the second edition. I have also been honored by being invited to contribute chapters to other multi-authored books.

**BECK:** You've done a few collaborations with John Greer Clark?

**MARTIN:** Right. John was actually my teaching assistant back in the mid-1970's and we have been friends ever since, even though we have been geographically separated. He was a terrific student. We published an article together based on his master's research and then he went off into the world and worked as a clinician before getting his doctorate. Really one of the best things about my career has been keeping in touch with former students like John.

**BECK:** What do you think is your single most significant professional accomplishment?

**MARTIN:** I hope that something has come out of my writing that has helped the profession. I've tried to instill in my students my philosophies about the important interactions between the scientific and humanitarian aspects of audiology. What I've tried hardest convey is the importance of proper communication with patients and their significant others.

**BECK:** Fred, if you don't mind, I know you had experience with Galvanic Skin Response (GSR) audiometry, and I wonder if you can tell me a little about those days?

**MARTIN:** In the 50s and 60s GSR, or electrodermal audiometry, was the only "objective" procedure we had. Since it involved giving annoying electric shocks it probably figures prominently in the nightmares of many audiologists who practiced back in that time. For myself I was never comfortable with this procedure with children and later we all began to realize that there were many misdiagnoses made on the basis of this test. It was required by the VA to be done on all patients claiming service-connected disability for hearing loss. Patients hated this test but at least I was more comfortable doing it on adults than on children and probably had more accurate results.

**BECK:** For the readers that graduated in the last 20 years, can you describe the GSR protocol?

**MARTIN:** Electrodes were placed on two fingers of one hand that led to a psychogalvanometer that monitored skin resistance. Often with small children I used the toes where the electrodes were harder for the child to remove. I shudder as I think of doing this. The fingers (or toes) on the opposite side were attached to two electrodes, which led to a device that delivered mild electric shocks. The procedure is based on Pavlovian conditioning with the shock (which always causes a drop in skin resistance) serving as the unconditioned stimulus and a time-locked drop in skin resistance acting as the unconditioned response. The tone then becomes the conditioned stimulus by randomly pairing it with the shock, and the resistance drop becomes the conditioned response. It did work in many cases but, while the shocks were not actually painful (usually less than 2.5 milliamps), it was an annoying and traumatic experience to the children being tested, their caregivers, and to me.

**BECK:** Oh my goodness, that seems like such a foreign concept in 2004. That's probably enough on GSR! Fred, what about humanitarian aspects of audiology?

**MARTIN:** I believe we have to be very careful when we deliver information to patients and to the caregivers of children, because it often comes as such a shock. And if you shock people, they can't process information properly. I had a personal experience along these lines. It happened more than two decades ago. My son was a senior here at UT and graduated at age 20 first in his class with a 4.0 in biochemistry. Please pardon the parental pride. He was a diligent student and had been admitted to the MD/PhD program at Southwestern Medical School. This in part explains why we went through so many misdiagnoses. He was rapidly losing his vision and had terrible headaches. We went from physician to physician, we saw ophthalmologists, optometrists, internists, neurologists and neurosurgeons. They all missed the diagnosis and David and I were treated less than respectfully in several cases. We were told over and over that he had eyestrain from studying. We finally learned that he had a huge tumor pressing on his optic nerve. After we finally succeeded in seeing a neuro-ophthalmologist I recall asking the physician, "What do you think?" He said,

"Oh, he's got a massive brain tumor. Unless it is removed right away he will be blind in two weeks and dead in four." I felt my knees turn to jelly and did not process much of what he told me after that. When I got home that night, my wife asked me a slew of important questions which I could not answer. We took him to the Mayo Clinic and he had the tumor removed. I realized then at the emotional level that what I had been telling my students through the years about how hard it is to receive difficult, alien information is absolutely true. So after that, I changed my major focus from diagnostics to counseling. I did a number of research articles on information transfer and family and patient reactions to learning about the presence of a hearing loss, and then the counseling book with John Clark. My hero in this area has always been David Luterman, who has written many wonderful books on this subject. There is a new counseling book by John Clark and Kris English. I was supposed to be a co-author of that book in fall 2000 but due to illness I had to withdraw. It is an excellent book and I'm honored to have been asked to write the Foreword.

**BECK:** I think your reflections on how your life changed as a result of your son's diagnosis really helps people understand why you elected counseling as one of your areas in audiology, and why it so important.

**MARTIN:** Yes, that incident really changed my life.

**BECK:** Please tell me your thoughts on audiology and counseling programs? I can tell you that during my doctoral studies, counseling was what I was least looking forward to, but in retrospect, and I heard this from many students, it's the course I got the most out of.

**MARTIN:** When we had only the master's program at UT, we were never able to require a counseling course; there wasn't enough time, although we encouraged students to try to work such courses into their programs. But now, as we are about to begin the AuD, we plan to require courses in counseling. Counseling for audiologists is extremely important, not just general counseling principles, but specific counseling issues and techniques that impact audiologists and their patients.

**BECK:** If you had it all to do again, would you be an audiologist?

**MARTIN:** Oh yes, I would. It's been wonderful to me.

**BECK:** You've been very generous with your time and I appreciate it. Any closing thoughts?

**MARTIN:** Well, nobody could have had a better career than I did, I was amazingly lucky. I don't know where the last 40 years went but I guess that's hardly an original observation.

**BECK:** Fred, it's a pleasure to get to know you.

**MARTIN:** Thanks Doug. I appreciate your taking the time to speak with me too. It's been fun to reflect on these issues, and I appreciate your interest.

*Editor's Note: Frederick N. Martin, Ph.D. is the Lillie Hage Jamail Centennial Professor in Communication Sciences and Disorders at The University of Texas at Austin, where he has served on the faculty for 36 years. His publications include 14 single-authored books, 16 edited books, 19 book chapters, 121 journal articles, 100 conference and convention papers, two CD-ROMs, and several monographs. Martin has won the Teaching Excellence Award of the College of Communication, the Graduate Teaching Award, and the Texas Excellence Award for Academic Advising of the Ex-Students' Association. He is a Fellow of the American Speech-Language-Hearing Association and the American Academy of Audiology, from which he received the "Career Award in Hearing" in 1997. His research interests revolve around clinical masking, theories of bone conduction, pediatric diagnosis, and patient and parent counselling.*