

Stereo Knobs and Swing Sets: Falling in Love with the Science of Behavior

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History and Background

Can you tell us a Little About how you Were Introduced to Behavior Analysis and What Motivated you at the Time to Pursue it as a Career?

I received my first lesson in the pains of extinction and the value of social attention as a reinforcer when I was twelve years old. My then nine-year-old brother, John, who has Down syndrome, would stand outside my bedroom door (usually in his underwear) and repeat the same words over and over again. The words varied, but he would generally fall into a pattern with the same two or three words. The words themselves were nonsensical—the name of someone we knew, a funny line from a joke, some phrase I had spoken at some point or other—but I am sure they followed some logic apparent only to him. The delivery was the constant: repetition at increasing volume, intermittently punctuated by a half-stifled giggle. The words didn't matter, of course; it just drove me crazy. As a twelve year old, I wanted nothing more than to be left alone in my room to enjoy my privacy or my friends. Instead, I had John giggling at my door. The script generally went something like this:

John: "Rudy-smoke-why."

Twelve-year-old me: "John stop!"

John: "Why?"

Twelve-year-old me: "It's annoying!"

John: "Rudy-smoke-why."

Twelve-year-old me: "Ugh, stop!"

John: “Why?”

Twelve-year-old me: “John I am SERIOUS!”

John: “Rudy-smoke-why.”

Then, like clockwork, I’d erupt in fury to chase him away, screaming profanities while he laughed and laughed and laughed. Of course, five minutes later he was back: “Rudy-smoke-why” I tried desperately (as any twelve year old would) to be the “adult” and ignore him, but even when I succeeded in taking the high road, it only resulted in him saying the phrase louder and with more zeal.

Eventually, I realized that if I threatened to take away something that he loved, he took me more seriously. John was and is an avid music fan. When we were kids, he would spend hours at a time lying next to the stereo speakers, memorizing lyrics and historical facts about music. So I started threatening him: if he didn’t stop annoying me, I would pull the knob right off the stereo, leaving him with no access to the music he loved. Over time, this too became a game: John would repeat phrases, I’d make hollow threats, he’d repeat the phrases, and I’d repeat my threats.

Then one day I actually did take the knob off the stereo, and then I had collateral. Or rather, we both did: he wanted his music back and I wanted him to stop annoying me. So we learned to strike at least a temporary bargain to get what we each wanted. He never fully stopped saying the phrases—in fact, to this day we both tease one another with “Rudy-smoke-why”—but John taught me something critical about human behavior, and about himself.

From a very young age I always knew I wanted to be a psychologist and I always knew I wanted to work with people with disabilities. This wasn’t quite as precocious as it sounds—in the third grade I wrote a class paper declaring proudly that I wanted to be a “sicologist to help parents of handicapped children be better parents”—but I was determined. As a teenager and through my early college years I worked in group homes, taught preschool, and worked in special education summer camps.

One summer in my early twenties I landed my first job as a respite care worker for children with autism. My job was to entertain a child with autism for three hours at a time, giving the child’s family a much-needed break. The company that hired me and paid me \$15 an hour (which in 1986 seemed a fortune) and provided some basic training in discrete trial instruction using procedures outlined in Ivar Lovaas’ *The Me Book*. In a four-hour training session, we received an overview of how to teach a child with autism: sit the child in a chair, provide him with a reward, repeat this ten times, eventually stop helping him to sit and give him the reward only when he does it by himself. This seemed straightforward enough, and I was thankful for the potential structure since I had absolutely no idea how I would spend three hours with a child with autism.

My first assigned child to work with was Jeffrey, an adorable four year old with autism, unable to talk or follow instructions and thoroughly disinterested in toys, and initially, thoroughly disinterested in me. Still, I discovered quickly that if I tickled him and threw him in the air he would laugh and come running to me. And he clearly liked cookies—and liked them even *more* when I told him he couldn’t have them. So I decided to do the one thing I learned in that four hour training: to sit him in a chair and give him a reward (a cookie). Sure enough, it worked: he started to sit down. When I wanted him to use the swing set in the backyard, I did the same thing: I sat him on the swing, gave him a cookie, and repeated the sequence over and over again until eventually he sat on the swing by himself.

I learned a lot that summer, but two fundamental lessons stand out: to be observant—to look for any sign that Jeffery was learning—and to be persistent—to not give up even when progress came slowly and resistance to the process was high. I also fell in love that summer: with Jeffery, and with shaping behavior. I knew then that this was what I wanted to do.

Can you Describe Your Graduate Training and how you Came to Attend Rutgers University?

Before I went to Rutgers University, I went to Teacher's College, at Columbia University and got a Master's degree in Special Education. At the time, I was working with several children with autism in their homes, implementing discrete trial instruction. I had not, however, received any "formal" training in behavior analysis beyond the four-hour training provided by the respite care agency. This was before certification in behavior analysis, and before many colleges or universities offered specialized training programs. I knew I needed to learn more about teaching and a special education teacher-training program seemed a logical step.

In the meantime, Ivar Lovaas published his seminal 1987 article documenting the recovery of children with autism. One day when I was in the elevator on my way to class, I overheard two students talking about a posting in the Job Placement Center by a parent seeking someone to implement "Lovaas therapy" with her child. I literally ran to the Job Placement Center. On the one hand, I needed the money. On the other, I knew that the work that I was already doing with children with autism, while rudimentary, was based on the same fundamental principles.

The parent responsible for the posting was Catherine Maurice, and she was looking for graduate students to work with her daughter, Anne-Marie, who had recently been diagnosed with autism. I called Catherine that evening. I didn't appreciate it fully at the time, but that call initiated one of the most important clinical experiences in my career.

Assembling and working with a team of dedicated therapists, I learned just how powerful and systematic, ABA-based instruction could be. I marveled as I witnessed not only Anne-Marie's progress, but also that of her brother, Michel, who had been diagnosed as well. Anything they couldn't do, we taught them: to look at us, to follow instructions, to speak, to play with toys, to communicate their needs, to interact with others, and more. The experience taught me, among other things, that with the right intervention, some children with autism can make truly remarkable progress. I also learned a lot about the importance of team work and collaboration: every member of the team was vital to ensuring the children's progress. Maurice chronicled that progress and children's extraordinary journey through treatment in her ground-breaking book *Let Me Hear Your Voice* (Maurice, 1994).

In addition to working with the Maurice children and continuing my graduate work, I was also working with several families in New Jersey, one of whom approached me about starting a school for their child with autism. They had witnessed their child's success in an ABA-based home program and wanted full-time programming, something more intensive than the local special education program. Whatever I knew about teaching, I knew nothing about starting a school, so I turned to a colleague, Dr. Linda Meyer, who had helped start the respite care program with which I was previously involved. For inspiration we looked to existing ABA-based school programs in NJ. We were particularly impressed with the Princeton Child Development Institute's model of creating continuity between home and school by training parents to be effective

therapists in the home environment. With that vision in mind, we rolled up our sleeves and opened the doors of Alpine Learning Group in 1989. Those doors led to the rented basement of a church, where with four students, borrowed chairs, and used toys we embarked on the adventure of creating the very first ABA-based school program for children with autism in Bergen County, New Jersey.

As we built Alpine from the ground up, I continued my graduate work. I was committed to staying in the New York/New Jersey area and wanted a graduate program focused on autism. I was familiar Dr. Sandra Harris's work in autism at Rutgers University's Douglas Developmental Disabilities Center, so I applied and accepted a placement in the Graduate School of Applied and Professional Psychology (GSAPP) at Rutgers University in the hopes of obtaining more experience in autism. The program was grounded in psychological and behavioral assessment, school-based interventions, and counseling, and although not specifically focused on behavior analysis, the curriculum included many classes on behavioral theory and practice. Fortunately, the faculty and advisors were very supportive of students seeking to carve out individual areas of interest, so my focus settled squarely on autism and behavior analysis.

At Rutgers University, Who was Your Major Professor and How did This Relationship Influence you?

During my first year at Rutgers, I approached Dr. Harris and asked if she would do a research project with me. I wanted to learn more about single-case subject design, and told Dr. Harris that I was interested in assessing procedures I was using to teach children with autism to ask questions. I was particularly interested in documenting if the children could learn new information as a result of asking questions. I was eager to learn and Dr. Harris was warm and inviting and patiently walked me through my first research study. This led to my first publication in JABA (Taylor & Harris, 1995).

I was also fortunate to take my first class in applied behavior analysis with F. Charles "Bud" Mace. It was Bud who convinced me that I needed more formal training in applied behavior analysis, and it was Bud who gave me my first JABA article to review as guest editor. He also encouraged me to do my pre-doctoral internship with him at Children's Seashore House at Children's Hospital of Philadelphia. The program offered a unique blend of basic and applied research and treatment experiences. I worked on an in-patient unit conducting experimental analyses for children with severe behavior disorders, such as self-injury and aggression. I also worked in a rat lab conducting behavioral momentum research under the guidance of Dr. Benjamin Mauro. I'll never forget my first day alone in the rat lab, when I lost control of my assigned rat and ended up chasing it frantically around the lab. Of the many things I learned from that experience was that I far preferred children over rats.

In that year I was also fortunate enough to meet Dr. Jennifer McComas. We became fast friends and colleagues. Together, loaded up on too much caffeine, we attended 8:00 am meetings in Bud's office where we were grilled on any number of topics including every potential schedule of reinforcement. After work, Jenn and I had regular "data review" sessions at the local coffee shop where we brainstormed various interventions for the clients on our unit. The extra caffeine and shared enthusiasm inspired a lot of great ideas. It was at Seashore House that I learned about the importance of experimental analyses and the benefits and joy of collaboration with colleagues.

Describe Your First Job in Behavior Analysis After Graduate School

Because I started Alpine Learning Group prior to even embarking on my doctorate, my career path was not typical. Although I had a number of jobs in behaviorally-based treatment centers doing direct care work and implementing in-home ABA-based intervention programs, my clinical role at Alpine Learning Group was my first true job in behavior analysis both before and after graduate school. Even when I took a sabbatical from Alpine to complete my pre-doctoral internship at Children’s Seashore House, I knew that I would return to Alpine when the year ended.

Advice and Guidance

Describe Your Primary Approach to Managing People (e.g., Providing Feedback, Problem Solving)

I believe that modeling teaching and treatment interactions with learners is a vital component of training staff. My style is to demonstrate implementation of a protocol and then step back, observe my staff managing the interaction, and provide feedback. I also encourage teachers to arrive at their own solutions to problems and avoid telling them “the answer” or prescribing a course of action. Thus, I offer the model as a starting point, but then encourage staff to proceed from there based on the data and their own observations.

I also try to use humor in my interactions with staff and to acknowledge my own shortcomings or mistakes. Early in my role as supervisor, my 360 reviews reported that I was high on corrective feedback and low on praise. In short, I was far more effective in shaping the behavior of behaviorally-challenged children than I was in shaping the behavior of young, neurotypical adults. Remaining open to feedback has been the key to improving my own training and supervision skills. While I remain quick to give feedback to correct staffs’ teaching interactions, I have come to understand and appreciate the power of positive feedback, and I give it more freely and more naturally. But I am still, and always expect to be, a work in progress.

Of all of the Roles you Have Served in our Field, What are Some of the Activities you Have Valued the Most?

While my true love is working directly with children with autism—shaping behavior, problem solving challenging learning issues and developing interventions, I also enjoy working with parents of newly diagnosed children with autism. In the immediate aftermath of a diagnosis, parents are often scared, discouraged, overwhelmed, and feeling helpless. It is an especially rewarding experience to give hope to despairing parents by demonstrating to them their child’s capacity to learn.

I also enjoy my editorial experiences. While serving as an editor can be time consuming, it keeps me in touch with emerging research and has inspired me to investigate new procedures or analyses at Alpine. I also enjoy the collaborative work of various boards on which I serve.

What Advice can you Offer to People Considering Becoming a Student in a Behavior Analysis Program on Choosing Training Programs and Advisors?

While career goals inevitably change overtime, I would recommend taking time to consider what it is you want to do in the long run. Do you want to ultimately teach in a university, run a clinical program, conduct applied research, go into private practice, or open your own business? Once you identify that fundamental goal, I recommend looking for a university training program that will allow you to develop and practice the skills necessary to achieve your goal. Thoroughly investigate training programs of interest, visit the program, read the research, and attend conferences of the faculty who teach at the universities you're considering. Where possible, introduce yourself to key faculty members before applying and talk to alumni of the program to find out where they are working and the types of activities they are engaged in. Finally, confirm that any program you are considering has all of the approved courses necessary for any certification or licensure you are seeking.

Is it Important to Have Some Experience With a Same Gender Role Model?

I think it is important to have role models of all genders and gender identities, and perhaps more importantly, to have mentors who are accepting and supportive of all genders and gender identities. What has been critical to me in mentoring relationships is to find someone who matches you in energy and enthusiasm, but who will challenge your thinking as much as they reinforce it.

What are Some Leadership Characteristics That Have Been Most Valuable to you?

The leaders I have admired most are humble: while expert at what they do, they know better than to take themselves too seriously. They are not afraid to admit that they don't know something and recognize that everyone—*everyone*—has something to teach them. I also believe strong leaders remain open to feedback. They are unsurprised to hear that they are imperfect, and keep their focus on the long, hard, and exciting work of improving themselves both personally and professionally. Good leaders keep learning, particularly in our field. Finally, having a sense of humor is critical. Not only a sense of humor about one's mistakes and personality flaws, but also about the daily work with children and families. It is important to meet the constant challenge of our work with appreciation and a capacity for joy.

Can you Speak to any Barriers That you Faced and How you Dealt With Them?

I have not experienced any professional obstacles that I can attribute specifically to being a woman. Early in my career, however, I certainly grappled with age bias. I was young when I started working in homes with children with autism, and I was also young to have cofounded a school program like Alpine. As a result, I sometimes confronted unnecessary and irrelevant comments about my age. But those encounters only fuelled my desire to learn more.

What Advice do you Have for Female Students or Young Professionals Who are Planning to Have Children? Is This Advice Different When Given to men? Please Share Your Experience or Thoughts on This Topic

Although I am not a parent, I've watched in admiration as many female colleagues struggle to balance the demands of early motherhood and the competing contingencies of a professional career. I have also watched female colleagues make the difficult decision to leave employment for a period of time to pursue full time parenting. Both experiences have impressed upon me the importance of creating a work environment that is supportive of employees who choose to be parents. The necessary accommodations are often basic and simple: providing a private area and regular breaks for nursing mothers, for example, or being flexible with a parent's schedule and leave requests. But however simple such accommodations may be, their effect can be profound. In some cases, accommodations enabled a staff member to maintain employment or to feel comfortable with the decision to leave work for a period of time. Moreover, workplace flexibility can support workers with families in returning to the workplace when the time is right.

While I cannot speak to the personal experience of being a parent in the workplace, I would encourage practitioners (both men and women) to seek out employment settings that reflect an investment in lifestyle quality and agencies whose mission extends beyond profit and production. Once you've found the right setting, it is important to advocate on your own behalf, communicating effectively and honestly about your need and goals.

Lastly, be sure to engage in regular self-reflection and assessment: your professional goals will, and should, change and develop over time. There is no "one way" to belong in the profession, and different degrees and types of engagement with the work of behavior analysis—part-time work, consultation work, conference participation and attendance, etc.—will be the right fit at different times.

Are There any Other Topics That you Could Elaborate on That Specifically Pertain to Your Mentorship Practices With Female Professionals?

Unfortunately, we still live and work in a culture where men occupy top positions in most fields, and where pervasive salary inequity reflects that imbalance. As mentors, we must encourage young women in the profession to seek out professional challenges, advocate for appropriate promotions, and demand equal pay. I also believe that gender bias still exists in our profession. While rare, I've had several mentees share experiences with me about difficult relationships with male professors or supervisors where they experienced intimidation and, in some cases, flirtation that was inappropriate and unwanted. As mentors in the field, we sometimes need to do the hard work of supporting younger professionals in establishing professional boundaries and then policing those boundaries—even when that enforcement requires reporting misconduct to the proper managerial personnel or disciplinary bodies. This is behavior—our own, and that of our colleagues—that we can and must shape for the betterment of our own profession.

In This Time of Growth in Behavior Analysis, What Advice do you Give to Behavior Analysts of the Future?

Like any discipline, behavior analysis will grow and change and its practitioners will become more and more skilled. But as the discipline expands and changes, it is imperative that we remain in touch with the scientific research. As more and more “experts” emerge in the field, we must make the essential discriminations between a personal or professional preference for a particular way of “doing” ABA-based interventions and those procedures that are supported by sound scientific research.

Additionally, economic constraints and pressures may drive clinicians to attempt to serve many more clients than is clinically or ethically feasible. I would instead encourage you to grow your practice or treatment program slowly and maintain a manageable client base. When we started Alpine, we started with four students and expanded incrementally and deliberately over time. This allowed us to create focused, individualized, and well-supervised programs for each student who entered the program.

Important, too, is to know your reinforcers and contact them frequently. Many times good clinicians will rise to management positions. While that sort of promotion may be a valued consequence for both a clinician and an agency, it may also distance you from the more salient reinforcers that got you into the field to begin with, such as developing a relationship with and shaping the behavior of a child with autism. As behavior analysts, we should know better than anyone else how absolutely critical it is to stay in touch with what motivates and inspires us.

Finally, surround yourself with people that both challenge you and encourage you to do better. Create or work in environments that foster learning, collaboration, and innovation. I feel fortunate that at Alpine I work with a talented staff who constantly and consistently challenge me to try new things, to think outside of the box, and to maintain a wide open, beginner’s mind that permits me to keep learning from all my teachers.

Can you Share a Story About a Time in Your Career That you Made a Mistake and how you Changed Your Approach in the Future?

Early in my graduate training, I worked at a clinic and was assigned a family therapy case with a neurotypical ten-year-old boy who was encopretic. He was extremely resistant to treatment and routinely refused to even enter the treatment room. I assumed the behavior was attention maintained, as his mother reported that she scolded him each time he had a bowel accident. I worked with his mother on developing a reinforcement system for using the bathroom, and advised her not to scold him when accidents occurred. We tried several different interventions, but nothing seemed to work: he still resisted coming into sessions and the systems we had established were not producing the results we had hoped for.

Then one day I went to a lecture on paradoxical interventions. The speaker was dynamic, and very persuasive in describing the intervention. I won’t belabor details of the theory and procedure, but the basic idea of the intervention is to “prescribe” the behavior you seek to eliminate. Caught up in the intellectual novelty, I decided *this* was the intervention to try with my encopretic ten year old: not only would we not punish

bowel accidents, we'd *prescribe* them. Needless to say, it was an epic fail. Not only did the intervention not produce the desired result, but it also drove the family from treatment altogether.

In reflecting on the experience, there were several lessons I learned. One, I never took the time to establish a relationship with the ten-year-old boy. It's hard to know if taking the time to do this would have worked, but clearly this was a professional misstep. Second, I made assumptions about the function of the behavior without doing an analysis, and I completely overlooked any possible medical reason for the encopresis. Clearly, I should have taken more time to assess aspects of the behavior and determine potential function, and to collaborate with the client's medical doctor. Third, I succumbed to the allure of the speaker on paradoxical interventions and decided to try it because it seemed innovative and interesting. I didn't take the time to determine if there was scientific research supporting this intervention for encopresis. Fourth, at the time, I rarely reached out for supervision. Encopresis was a clinical challenge with which I had no experience, and I should have worked more closely with my supervisor on this case. Thus, in the end—and somewhat “paradoxically”—I learned a great deal from a truly disastrous intervention.

Of course, that is one of the reasons teaching is endlessly satisfying: it is impossible to teach without continuing to learn along the way. And as my brother John's incessant giggling taught me long ago, there is tremendous pleasure to be found in identifying your reinforcers and helping others access their own.

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