

Lesson 5 Transcript  
Where It All Began  
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I wanted to take a little time now and talk about history. Sometimes we forget where we've been. I'm not sure all of you are aware of what has happened with regards to autism treatment, especially at the young kid level. This is what all the buzz has been about and is what has pushed all of this. It isn't just about incidents and Judy talked about, what's all the fuss about where there are all of these incidences with kids with autism. I'm not sure if there are more and more kids with autism because there is more and more possibility of better prognosis, so more and more people want that diagnosis. You see a lot of kids that years ago would just be considered to have mental retardation or developmental disability, but now they are being diagnosed with autism because that comes with a lot of hope and I'm going to talk about that a little bit. Actually applied behavioral analysis, that's the foundation, so, philosophically we want to talk about inclusion and being involved in the regular classroom and regular school setting. We are going to talk about how to create a place for these individuals in that environment.

The other thing we want to talk about is applied behavioral analysis. That's the place we want to approach it. How many of you have heard of applied behavioral analysis, how many of you have had training in it? So a lot of this is probably going to be not new news, but we need to get on a common language in terms of what we're talking about in terms of treatment. One of the things I wanted to mention was that in 1964 Montrose Wolf did a study at the University of Washington with a little kid who was living in Fircrest, at an institution in Seattle. He was asked for help because he was having so many problems in tantruming and being out of control and so forth. He was only five or six years old. Well at that time I don't know if you know, but in those years, Washington was a hotbed for applied behavioral analysis, a lot of famous people were there and then eventually moved to Kansas. So he did a study with the kid. They had a preschool they were working with, and that's why he picked this kid up and tried to apply these techniques. The kid was living in the state institution and they went up and worked with him and tried to help out. That was 1964. At the time they began to do the work with him, he was three and a half years old. He was self destructive and labeled psychotic. He used no language, was very withdrawn, and had no self help skills, kind of a real problem and the institution had to call for help. At the end of 1972 they made a lot of progress, and they followed up with him when he was 13. He was enrolled in sixth grade, moving on to seventh grade. He was twelve. He was in the class without any support. He had an IQ of 110. He was described by his teacher as a well liked classmate, considerate, pays attention, and takes pride in his work. He was getting satisfactory grades. He wasn't in special education. You've all heard of Lovaas and his study, and you all think that that was done in 1987. No, that was done 43 years ago. So somebody went in and worked with the kid intensively and they were able to make such change that the kid was able to make such change in prognosis. All of this stuff has been done around young children.

Then Lovaas, in '73 was actually graduate student at the University of Washington. That's where that came from. Then he moved to UCLA as a graduate student. He did work with an institution down there with what were called psychotic children.

He had a grant and went in for two years and worked with these kids. He was really interested in aggression and why people fought and were so aggressive. He was raised in Europe during World War Two and wanted to find out why these kids were so abusive and aggressive. If you ever get a chance to see that movie, he has one called Teaching Language to Psychotic Children, and it's phenomenal what they did in two years. They just made phenomenal progress with those kids. But when they left the institution, they got kicked out because the grant ended as usual and the kids all regressed. So they went back in to try and help the kids, and the kids regained their skills. Then they left and the kids regressed and then went back and the kids regained their skills. So they had what would be a natural research design which shows that when treatment was applied they learned, when it was withdrawn they regressed. So it was important for him. He thought that well these kids were older and these kids weren't very successful in maintaining their skills so what if I went and worked with young children, two or two and a half, early diagnosis, work with families and the community and then see what happens.

So that's what that famous study was about. I don't know how many are familiar with his actual study, the results of it, but he had forty kids, twenty in the control group. Actually there were 38, 19 in the control group and 19 in the experimental group. The experimental group got 40 hours a week of intensive instruction, one to one discrete trial drilled instruction on language. It wasn't 40 hours of one on one. It was ten minutes of instruction, ten minutes of play. They would do a lot. It wasn't just one on one for 40 hours. That's a misnomer. So they provide this intensive targeted specific skills and one of the things he thought in 1973 was, "Well if I teach the kids one skill, maybe they will be healed, maybe they will come out of it. If I teach them their name, maybe they will develop a self concept and then they will be no longer autistic. Maybe if I do some one thing, or one pivotal skill, they will be different." He never found that. He found that you have to teach everything, and that's what he got into, this very elaborate curriculum where he taught every little skill and every language skill through this discrete trial training. At the end of that 40 hours, right at two years or three years. The control group, they got just whatever they normally get, they got ten hours. A lot of times, if you talk to parents that go to health and welfare services at a young age, they might get a couple hours. The speech therapist might come by for an hour. The OT might come by for an hour. They might get a couple hours of developmental therapy. So it's kind of typical to get about ten hours at a young age throughout the week of a kind of eclectic group of skills, therapists. Okay so what happened is that at the end of that time, at the end of those three years, the average IQ gain for the group was 20 points, 47 percent of them went on to public schools undiagnosed, unrecognizable. They went in and nobody knew they had autism. He has another film out if you ever want to see it. I can't remember the exact name of it, but it's a follow up where they interview the kids and they talk to the kids. It's pretty powerful. They show the kids and you can't tell they have any problems. You see them in the beginning and you see them in the end and it's a phenomenal change. So that's sort of what it's generated on. What happened was that the control group, none of them went on undiagnosed, so that then got picked up by the media and got published and became really what has driven all of this autism stuff. Of the

control group, 48 percent ended up in classrooms for severe disabilities, 11 percent ended up in severe disabilities on the experimental group. It turned out there was three kinds of outcomes that came from the study.

Kids that quote 'recovered' went on undiagnosed, about half of them. They had other kids that learned a lot and were labeled with learning disabilities, and then they had other kids that made progress, but were still considered pretty delayed. There was no way to pre-diagnose which ones would make these gains. They just had to take this kid who has autism, an early diagnosis and work really hard and hope that it comes out okay. There is no way to pick which ones will be successful.

So that was really pivotal in terms of the movement of autism. The other thing that happened was Catherine Maurice wrote a book called Let Me Hear Your Voice. How many of you have heard of that? It's an easy read. You can read it in a few nights. It was a book she wrote. She happens to be an editor for a publishing company, so she's a very good writer. She tells a story about her journey to try to find a treatment and ends up using quote 'Lovaas' therapy, or discrete trial therapy. She ends up talking about the outcome she gets. She has two kids that are diagnosed with autism who go through the program who make tremendous gains. So that's a good read. It's an easy book to read and talks about her struggles.

Now, the downside of all of this is that everybody comes in and they have this expectation. Parents come into schools and have this expectation that everybody wants it. IBI was born out of this. Intensive behavioral intervention was created because parents say I want that. I mean who doesn't? Potential recovery, I want that. So that's what gave birth to IBI. Does anybody here work for an IBI? Are you actually employed by an agency? IBI has really gotten goofed up over time. It used to be just for young children. It's now up to 21. It's just not really what it was intended to be. It just sort of got politicized and changed, but it was really driven by this information and this study.

The last one that has developed recently and maybe you've heard about it, it's called verbal behavior. Those workshops are all over now and this guy just goes everywhere doing them and what it is, is a curriculum that analyses behavior and all of its little components and gives you a direction for instruction. We have it up here. It's called the ABBLs. So those combine together to kind of put us where we're at today where people are putting a lot of emphasis on applied behavioral analysis and trying to apply it. Now we're talking about how do we get it into the schools? So we need a common language.

We believe that it's the law of effect, why will he or why won't he do something. It's principles used in an attempt to identify the variables involved with influencing behavior. Predictable behavior is determined and is purposeful. A lot of times we think that people sort of react randomly, or things just sort of happened accidentally, or unknowingly, or why they do that. I don't know. There usually is a reason for it in terms of the outcomes that it produces, A law of effect applies. I believe this as much as I believe gravity. My son plays baseball and he could run out and catch a fly ball, but he knew nothing about physics. He knew nothing about when that ball gets hit, it travels at that rate, at that angle it will land at that place based on the laws of physics. He still doesn't and probably never will, but he operates in the world and he can move around the world and operate in gravity, but knows nothing about it. If you asked him to build a rocket-ship to the moon, he couldn't do it because he doesn't understand physics. The way it is with kids, we are with this, with the law of effect. We operate in this

world, but if we really want to move kids forward, we have to understand the principles really well and apply them really well.

We think it's kind of a rip off to have a kid who is really hard and challenging to learn and we provide weak strategies or not very in depth or intensive strategies. We know he has trouble learning and doesn't respond in a typical environment, so we need to use really powerful strategies. Okay so we looked at the science of that law of effect. Now we need to get on the same page in that in terms of understanding. This won't be new to most of you.

The other thing about that is that we try to avoid circular reasoning. Why do they do what they do? Well, why does he do poorly on math? Because he doesn't have a math brain. How do you know he doesn't have a math brain? Because he does poorly in math. You kind of go around and around. We're really good at that in this business right? Why does he not do well in school? Ah because he has a low IQ. How do you know he has a low IQ? Because he does not well in school. It doesn't get us anywhere. It's all of these things that just drive us in a circle. Why does he flap his hands? Because he has sensory problems. How do you know he has sensory problems? He flaps his hands. Here is the worst one. Why do I do poorly? Because I'm not smart. How do I know I'm not smart? Because I do poorly. When kids internalize, or believe that statement, it goes around in a circle. Maybe there is some things outside of that effect his smartness and his ability to be successful, but we're really caught in that circular reasoning in terms of the kids that we work with.

We can take flapping hands and we can actually use that as a reinforcer. We can hold the kid's hands down and say, "look at me," and then let them flap. That will reinforce looking. So we know that this is just a reinforcer. It's not necessarily a sensory need. We just know it's a reinforcer. Why does that kid fidget? Why does that hyperactive kid fidget? Because he has hyperactivity. How do you know he has hyperactivity? Because he fidgets. But if I fidget, I avoid the task that I'm unsuccessful at. If I'm inattentive and dart around and can't come on task, it works out swell because I'm not on task and no one presents me with anything different, so I escape difficult situations. So there is a functional reason to fidget in hyperactivity. It's effective to getting out of tasks you're not successful at. So sometimes we have to watch that we don't get caught in explanations of kids' behavior that just drives us in circles and doesn't get us anywhere. It's called circular reasoning.

So we try to assume that all behavior results in an outcome. This may be a review for some of you. So we can present something to the kid and can we remove something. Following behavior we can present something and remove something. It will increase behavior or it will decrease behavior. It's just that simple. If we present something as a reinforcer or a reinforcement, we all are kind of tuned into that something that follows the behavior immediately is a reinforcer. The danger of that is, how do we know if it's a reinforcer, it's because the behavior changes. A lot of time people give kids things that will reinforce them, but he doesn't do it anymore. Some kids have some weird reinforcers, so you have to find things that they'll really work for.

We can remove something that would increase behavior. That is called the escape. So all of a sudden the TV turns on and it turns fuzzy because something happens to the signal and it's real loud. You immediately turn down the noise that's driving you nuts. That's escape. Why do you take the aspirin? To get rid of the headache. Why do you buckle your seat belt when the alarm buzzes? To get rid of the buzzing. If the buzzing wasn't there, you probably wouldn't put

it on. So why do I do all the chores around the house? To keep my wife from nagging. So we control a lot of ourselves through escape.

If we can harangue somebody or lecture them enough or wave and point our finger at them enough, finally they will do it to get us to stop. A lot of our behavior is escape driven. And a lot of the kids we work with are escape driven. Why does he have a tantrum? Because he doesn't want to do what I want him to do. He wants to be in control. So he knows if he is nutty enough, goofy enough, and aversive enough, I'll stop. The thing about kids is, they're powerful. They can do a lot more to me, they can bite me, kick me, scratch me, spit on me, do all kinds of thing to me that I can't do to them. So they have a lot more tools and their beck and call.

The other thing we can do is we can present something that punishes. We don't really subscribe to that square. We try to get rid of that square. We don't really apply those techniques. I think we all know what those kind of issues are.

The other thing we can do is remove something that the kid has and that's a penalty. So if you're driving down the street and you get a ticket, they take away your tokens. They charge you \$150 worth in your tokens. You have your tokens and they take them. That's a penalty. The kid misbehaves with a toy, you take his toy away. That's a penalty. You don't pay your bill on time and they charge you a late fee. That's a penalty. These are the two areas: escape and penalty, are where we were raised, where we operate, and where we are comfortable. We're even comfortable down here a little bit, but over here we don't like it too much. He should want to learn. I shouldn't have to bribe him. Then when you get a reinforcer, you immediately discount. Somebody says, "That's a really nice job you did" and you go, "Yeah, well it wasn't really that big of a deal." You have trouble excepting it. You don't go, "Yeah, it was, thanks." So we're commonly uncomfortable here because of our upbringing and we're really used to working in this area. It's how you try to change your teenager's behaviors. You nag, yell at them and lecture them. I had five and it doesn't work. They turn on you, about 13. They turn on you at 13 and bleed you dry at 18.

The last one is behavior causes an outcome. It could not cause an outcome which is called extinction. You saw a little video of that where the behavior got worse before it got better. So the behavior will always go up. If you turn on a light switch and it doesn't work. Do you just go, "Oh well, it doesn't work." No, you flip the switch up and down. If that pop machine doesn't give you what you want. What do you do? Do you just walk away? No you push the button and finally you really escalate and kick the machine. Or you go to the store and say, "I've been wronged, you over charged me," and you try and get a remedy. Then they go, "Well, tough," and you go, "Okay." No, you get a little firmer, a little louder (because you're in extinction), and you get a little more aggressive. You then get more and more insistent and finally they go, "Okay you can have it." So now you've been reinforced for being really insistent and aggressive. How about a spouse? You've got your spouse and you've got a really good point to make and the spouse just doesn't get it. Do you go, "Well that's okay"? No you get a little louder and a little more insistent, you get a little stronger. You're in extinction. You're not getting acknowledged. You're not being heard. When you're in an argument and you're not being heard, people escalate and that's just extinction. Being listened to and being accepted and heard is a reinforcer. So you get this burst, where at the top it's just kind of out of control and eventually drops away, and you saw an example of that on the video tape. Bell rings, I get a treat, bell rings I get a treat, it went on for days. Then out of the blue, bell rings, I get nothing at

all, nada. I mean, can you seriously call my attack unprovoked? That's what happens, your own behavior really.

What happens when the kid doesn't mind? Or the kid doesn't cooperate or the kid doesn't do what you expect him to do? You get more aggressive. That's where child abuse comes from. The kid doesn't shut up, so the person escalates and gets more aggressive.

We want to try and develop along a developmental trajectory. That's our goal, if that's a typical developmental trajectory, across the top is months, along the side there is skills learned, we want to look at that and see what will happen. We have kids where they're along this pre-intervention, where they're going along here and if you project that out, they would have this huge developmental gap from typical kids to there. But if we intervene, there's a line that goes up like this and then the gap that goes like that. And that's what Lovaas did. He reduced that gap by doing that. He used intensive instruction and remedied that big gap down here. So you're trying to get the kids to change that developmental trajectory. Ultimately we come back to the fact that we just want kids to belong, fit in, and be able to go to birthday parties. A lot of parents never get the chance to have that happen. We also want them to have lasting relationships.