

Lesson 7 Transcript  
The Basic Principles & Assumptions (Pt.1)  
Presented by: Mike Day, PhD  
Positive Behavioral Supports Project

We were talking about what is autism generally and what are the problems with autism and I was pointing out that autism is a discrimination and motivation problem. We are going to do something about that or try to anyway. We are kind of using those basic principles of applied behavior analysis to analyze the problems. So I want to expand on that now and talk about your abc's or contingency diagrams and how we approach the problems with kids. Sometimes when we go out we hear things that are kind of the 'don't say its': 'She is playing a game', 'He does it to'. We sort build intention about the kids that there is something going on internally to get me or do something or there is something I can't do anything about. We try to stay away from those terms. Or 'he won't do it,' implying that there is nothing I can do, he chooses not to do it, and so there is nothing I can't do. 'He knows or thinks something'. He knows how to do it, and I am not going to give him a smartie for doing it, he is just going to want to do it. 'He knows how to do it', or another one 'he doesn't know something,' so I spend a lot of time explaining it to him, and that's not effective with the kids we work with. I was working with a lady the other day and she was working with a kid to touch his shoe, she says, "Well he doesn't know what a shoe is." And I said "ok," So she hands him the shoe and goes, "That's a shoe. IT goes on your foot," and we spent a lot of time talking about a shoe and all of this was going nowhere. 'She likes it'. We don't know what they like or don't like. It's how they behave. We have to look at their behavior and how it's affected by the consequences. Or my favorite one is 'it's a full moon,' 'he's a nut job because it's a full moon'. The one I hear a lot when I go out, because this is predominantly women, if I go into a classroom and the kid doesn't misbehave, they go, "Oh well that's because a man's here." I didn't know I had those kind of powers. This leads to the blame game and does not go anywhere.

So we build this contingency diagram and let me go through this diagram and show you what it is. We start with the behavior of interest. We have to decide on what we focus on, you can't change a kid by one thing, it has to look at a specific behavior. You can't change his personality, you can't say he is a control kid, or he is this kind of kid, we are not going to change that, we are going to start with something small. Not that he is just a wild child; we have to pick a single behavior to work on. Sometimes people have difficulty picking a behavior. There is all this behavior going on and it's not very sexy, to have to pick something so tiny to work on, that's not much fun, you want to work on something big. After going through college and taking a lot of courses in child development, I got so overwhelmed by the ideas of assimilation accommodation stage, or Piagetian stuff, or is it a transactional this, or a transactional that, cognitive restructuring. It was too much for me. I don't have the brain for that kind of complicated stuff. So I work on simple stuff, and we are going to talk about the terms of presenting a teaching activity is that it has to be simple and not think about those big ideas, so I get down to the simple basis. So we have to identify a single behavior.

We do this a little differently, and this may help you with your assistants. When we look at this ABC diagram, most of you are trained to think what comes before is 'A' then there is a behavior and what comes after.

We talk about the 'A' as being the motivating condition. So there is something going on before the kid behaves and that causes for something to happen over here. So rather than talking about the sequentially or the order it occurs, we talk about, I was working with him and giving him a task to do, he slugged me and got out of it. The before was, he had an activity, the after, was the activity was removed. We don't think about the before as just being sequential.

So we have some rules of filing out the chart. The Opposite Test. 'A' and 'C' should be opposite. We want a specific behavior. We want to avoid the dead man. Whenever I go in, people want kids to not to do something. I want them to sit there. Well a dead man can just sit there. I want to have something that's observable, a single behavior, and follow the sixty second test.

Here is an example: The behavior is that Bobby calls the teacher a jerk. The after is Bobby gets a big laugh. Now the before is teacher announces nap time. That's how traditionally you would think about it, teacher announces nap time, Bobby calls teacher a jerk and Bobby gets a big laugh, so Bobby gets a good set of attention. So what we do is the opposite test which is: get people to think in terms of: Bobby calls the teacher a jerk, he gets a big laugh and before he didn't have a big laugh. Now it seems pretty simple to you, but we work with people that say he is just doing that for attention. I say "Wait a minute, you are working with him, he has your full attention right now". So it can't be working for attention, so if he misbehaves he has attention before and attention after. So we try to help people diagnosis the problem by looking at the before and after as being opposites of each other. If they are not opposites, then you have to rework it. It's just thinking about it differently.

Let's look at another example: Mom makes liver for dinner. Bob gives his dinner to the dog. Bob will not get his allowance. That's how it might have occurred temporarily or sequentially. But we try to look it as: Bob gives his dinner to the dog. He will get his allowance before. Now that he has done that he won't get his allowance. So they are opposites of each other. That really helps us really to pinpoint in doing the functioning analysis or looking at behavior that is going on.

The other thing we want to look at is a specific behavior. People want to change big behaviors, like personality or change something really big. We get things like is Bob is lazy. Bob will get praise. Bob is lazy. Bob won't get praise. That is not a specific behavior, being lazy, so we break it down into: Bob watches TV, something specific. Some people tell us that he has tantrums. That's pretty big, because we have anything from whining to hitting. Or he will act out. They just talk in such big terms, which would be nice initially but when you are getting down to changing behavior you have to be specific. Remember the kid had trouble learning, so if it is confusing to you about when he is doing something, you can be darn sure it's confusing to him.

This is one we see a lot: Bob doesn't get approval. Bob doesn't poke his neighbor. Bob gets approval. So Bob doesn't get approval and he doesn't poke his neighbor. That violates the dead man test. So Bob has to do something, because whenever we have to go in and what frustrates me about PBS is that invariably I go in and they say, "I want him to not do this" and "I am tired of him doing 'X,'" and usually I ignore that, and they go in extinction, and they get mad at me, because I want to work on creating a new behavior, something different, rather than getting rid of something, so we are trying to focus on what to do and what not to do.

You see things like, Bob knows his facts. He doesn't have a good job, but he gets a great big good job if he knows his facts. That's not very observable so we want to make sure it's something like Bob writing his answers and what the conditions are.

Here's another one we'll see. Bob follows direction all day long, no sticker before but has a sticker after. Whew, one direction you're not following and you're out that little sticker at the end of the day. He works all day for a can of pop or something, so that's too big. One of the problems we have is that we tell people to go out and maybe follow a single direction. For our training and our organization what we do is we give staff when they first start a bunch of Smarties or tokens. We say "go give these away, I don't care what for, you just find something to give them away." You're sure they won't give them away to things they don't like. They'll find things they like, and they have to come back empty handed. So we teach them it's easier to give out a lot of stuff rather than just one good job at the end of the day. Go out and give all of these away and get them used to giving stuff away. It's a good training tool, just saying "go give all of this away to that kid, see if you can find something you like."

This is the next one we do. Bob does not have a treat. Bob gets 100 percent on his spelling. Bob gets a treat when he gets home. Things are really delayed. We see these contingencies are worked out where at home he gets a special activity, or at the end of the day gets a treat, or at the end of the week he gets a pizza party or ice cream party. We try to work on immediacy. One of the things we know about reinforcement is that it has to occur within sixty seconds, and that's even kind of a long time. You know what's funny about autism. Have you ever seen kids with autism around computers? They're good at it. They don't have trouble learning to walk, why, because the physical environment consequences behavior immediately, consistently and is very reliable and trustworthy. There is no forgiveness. You tip your balance the wrong way and you're going to fall down and get an ouch. When you use that computer it's going to do the same thing every time. So they're capable of a lot of learning if we can be immediate, consistent, and focus on single behaviors. It always amazes me the ability of kids to get on the internet, surf it, and get around. It's because it's a really reliable experience.

So we talked about behavior of interest and the before and after to make sure they're immediate and opposite. We've seen a lot of times where people are so busy collecting data – we're big data collectors – but lots of times it interferes with learning. What happens is the kid responds and they go over here and write down their data and turn around and go "good job." Sometimes data collecting can get in the way. We talked earlier about this behavior relationship where you present something, then remove something, and it can be a reinforcer of something they don't like, and that's this square so I'll need to go over that again. The other one is that there is no change in the last one and that's extinction. It's pretty simple really, but it sure is hard to put into practice.

A lot of people say that that's such boloney because that doesn't apply to me. So there are two kinds of contingencies, direct acting where the outcome occurs within 60 seconds like when you touch something hot and you burn yourself that's the 60 seconds rule. When you pull the sliver out of your finger and it takes away the pain, that's an immediate, direct acting contingency. The other one you have are indirect contingencies which are rule governed where people with good language can follow rules. If I put on sun-screen, I won't get cancer. That's a rule governed behavior which is indirect and that's what we operate a lot on. Once you get a lot of language you operate on these kids of rules.

Most of the kids we work with act on direct acting contingencies. We make the mistake down here of saying well let's explain it to them and maybe they'll follow the rules and like Judi talked about, they just don't get the rules. So a lot of these indirect acting contingencies are not effective. They might be effective for us, but not for the kids we work with. Or their rules are so messed up because of their perceptions.

The other part of that is that there is a discriminate stimulus which is an Sd, that's how we say it. It's a stimulus signal that says when I do something, something happens. So when the phone rings, I pick it up, and I hear some ones voice. So the phone ringing is a signal to pick it up and something will happen. Any type of prompt or instruction to a kid would be an Sd like stand or up sit down. Stop sign is an Sd like if I stop my car I'll avoid an accident. An S delta is something that won't get you reinforcement. So you go to the pop machine and you see Coke, Diet Dr. Pepper, Bud Light or whatever and you pick the one you want which is an Sd while all the other ones are S delta's. That's the whole behavioral diagram that will work for our instruction, problem solving, behavior and so forth and that's where we're coming from to diagnose instruction as well as problem behaviors.

Let's set that aside and lets think about thinking a little bit. This is my deep thought I had in the 60s. I had a lot of deep thoughts in the 60s and when the fog lifted, I found out they weren't so deep so I've given up on deep thoughts. The heart of all learning is discrimination, recognizing similarities and differences between stimuli. One of the things that I was telling you was that a lot of times we get so bound up, especially at the university level, but you get so convoluted sitting up on the fifth floor looking out the window dreaming up this complicated schema about education that it seems like we don't really get anywhere. Some of the curricula out there are hard to implement because they are hard to really understand and get your mind around. I like to think of it this way, the heart of all learning is discrimination, remember that's one of the number one problems they have is discrimination learning. So if we get rid of the mystery and quit thinking about it so complicated and remember that matching and finding things that are the same is what learning is about. If you're solving a math problem you just have to look at the problem and apply the correct solution. At any level it just becomes recognizing what it is you're supposed to do by looking at the Sds and then responding appropriately. So it's matching the answer to the Sd.

So now we're looking at discrimination learning and focusing on behavior. That gives us a very powerful tool, and this is the one that we're going to use for building most of our adaptations that we'll show you tomorrow. They can demonstrate learning by using a matched sample. That is a very powerful technique of teaching. Almost all of the educational curriculums that we build are on this notion. You can do it this way, where you take the sample that's on the bottom and the choices are on top. Or you can do it the other way where it's on the bottom and you match to the top. Either way it's matching to the sample. So let's look at this idea of matching. We know that a goes with a, those are identical, two non verbal, just two visual things go together that's simple. We know that a 'b' goes with a 'b', it's a little more complicated because they're kind of abstract now they're not functional. We know a letter goes with a letter, it's still pretty basic learning – visual to visual. Now we have a verbal, I hear the word stand up, I have to match it with the correct action which is stand up. Point to black, now I have to listen to what you say and select the correct answer. So now I'm just matching the word black with the correct answer.

That set visual to visual is even more difficult now because they're not identical. But these two items go with this numeral two, just matching. There is no big cognitive structure going on inside the brain. It's just matching. Two plus two equals four, just matching. That word house goes with a house. That phrase matches that action. Those coins together equal that quarter. That picture of fruit goes with the word fruit. Look at your biology or science classes in school and it's all matching. It's all knowing that this part of a molecule given a diagram and you put the correct parts on it, it's all about matching it's not very complicated. If there is something complicated it's about learning routines. So we take an educational material like this and it's just match to sample. Each one of these, remember those are all the choice patterns up there, takes one of those four items and matches it to the correct numeral. We can have something like this where he takes one of these, a yellow car and "a boy with a horse and a chicken", and I just take that phrase and match it up to this phrase up here. Each one of these items is then matched from the sample.

Here is a routine we did with a kid to add seven plus three is six, we just took the three, he made three sticks he counted seven eight nine ten and wrote the ten. So he had to look at this plus sign and follow that little routine. Obviously there were prerequisites to it as we did it, but each one of the prerequisites taught and off he went. This is subtraction, when he saw this minus this sign he would make the circles at the top to make the discrimination easier when the circles were the six. Then he would cross off the number on the bottom and count how many he had left just following that routine. It's not as perfect or as efficient as a typical kid would do it, but we're moving into an academic curriculum.

Here's an example of an earth science class where we took the matching, so this is color coded on pages 46-48, so this is highlighted and this says page 45. He goes to the part of the book that is color coded so he matches it and you can color code the page, say it's on the page, the paragraph or the word. Color code anything you want at any level of difficulty, remembering that we want to be level appropriate depending on difficulty and then he puts in the right word there. The movement of rocks and soil by rain water is a type of erosion. So he was able to access that curriculum by using that match to sample sequencing format.

So the two questions are can he do it or won't he do it. If he can't do it it's because of a discrimination problem. If he won't do it, it's because you don't have a big enough smarty. You need to drag out the big Smarties or something. If he can't do it it's a learning problem and we need to figure out how to break it down and minimize the errors. If he won't do it it's a motivational problem. I submit that most of the problems are up here. Most of the problems we get are kids withdrawing, kids shutting down acting out because they want to escape because they can't do it up here. Much of our curriculum is not well leveled.

The pivotal skills we're talking about and that I think are important – well remember I was telling you what do we do with these little guys that get 40 hours of instruction from what Lovaas built on thirty years ago, but we're not doing that in schools. So what do we do in schools? We have to look at what the skills are that we want to build in schools. We want the kids to be responsive adults and be able to follow directions. They also need to be able to initiate communication. We really want to be promoting communication. We want to build these matching skills because that's what all of our curriculum is going to be. We want them to be able to sustain engagement. In other words we want them to be the boss of themselves, not the boss of me.

We want to get them to work by themselves, be engaged more often, have low rates of problem behavior, and respond to delayed consequences. We're going to try to go through some of these skills and how to build these skills.