

Web-based Radio Program

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March 3, 2005

## HOW CHILDREN DIAGNOSED WITH AN AUTISTIC SPECTRUM DISORDER CAN DEVELOP SOCIAL AND EMOTIONAL SKILLS

Good morning and welcome to our web-based radio show. Today we have a very interesting topic, and it's a little bit of a shift from what we advertised last week. We like to be responsive to current events and current interests, and there was an interesting article in the *New York Times* about how children with autistic spectrum disorders – even those who do very, very well and develop lots of language and academic skills – often have a hard time when more advanced social skills are required. So, when they get to be seven, eight, or nine years old and the social requirements become more complex, as we all know and children in fourth, fifth, and sixth grade become very complex in their social negotiations and expectations, and then in puberty and adolescence it gets even more complex, many of the children start having significant difficulties even where they've done very, very well up until that point when it comes to progress in language and progress in academic skills, and so forth.

The *New York Times* article was making an assumption that this was almost built in to the problem – that it was an insurmountable hurdle, that this is the nature of the challenge of autism or autistic spectrum disorders. So, even children with “high functioning” were facing this problem. But, we found that this is not the case. Just as there's a lot of variation in how much children can attain in terms of language skills or academic skills – where some children who reach high levels even though they were originally diagnosed with an autistic spectrum disorder, and others who move along more slowly and develop more limited language – similarly, we found that there are groups of children who can develop very high levels of social skills with empathy and reading emotional and social signals, and be even quite gifted, making future therapists, for example, where they help others.

The fact that this is possible, even for a subgroup, changes the expectations for all children, because even those children who struggle with slower language and slower cognitive development and slower emotional and social development – what it means is that they can progress along a different trajectory in a different way than was formerly thought possible. So, the fact that a subgroup of children can make this better-than-expected progress – even in social skills, which is supposed to be an area where they're not supposed to be able to make progress – means that even children who move along more slowly because of greater neurological challenges can make progress in the important areas – in warmth, in compassion, in comfortable with closeness with others – and the social skills they do develop can be more natural and more meaningful, even though it may not be at age-expected levels.

Now, what's the basis for my making these statements and why do I think that the assumptions made, often in the popular literature, are mistaken? That's what today's show is going to be about. Before we launch into explaining this and making the case for this, the topic for today's show, accordingly, should be how children can develop social and emotional skills even when they have a diagnosis of an autistic spectrum disorder or a closely related disorder affecting relating, communicating, and thinking.

But before launching into this discussion today, I wanted to also mention that we've gotten lots of interest in our Floortime Foundation website, [www.Floortime.org](http://www.Floortime.org), and about the NBC series. On Wednesday of that week we had a segment on the DIR/Floortime approach as part of a segment on the three main interventions, which covered ABA/Discrete Trial, TEAACH, and DIR/Floortime. For those who haven't seen it, it provides a short glimpse – but what I thought was a well-done description with some nice video illustrations – of the DIR/Floortime model, and contrasted it very well with TEAACH and with Discrete Trial/ABA.

The point was emphasized in the piece, both in comments I had a chance to make and in the visual images portrayed, the very different approach the DIR/Floortime approach takes compared to other approaches. In DIR/Floortime we work through the child's emotions and affect and through the child's relationships and build language and cognitive and academic skills and social skills through that window – through the window of the child's emotional life. We're intensive, we're systematic, but we build the foundation pieces for relating, communicating, and thinking through negotiating our six stages of development. It's a "bottom-up" approach; it's a developmental approach.

There are other developmental approaches now emerging and available that follow similar principles, but don't quite follow the role of affect quite in the same way the DIR/Floortime approach does, or utilize it quite as systematically or extensively, but the developmental approaches all have in common a bottom-up approach to building the foundations. The behavioral and other approaches that have been around for longer periods of time are I would call more "top-down" approach. They come at it from the point of view of what skills older children are expected to have and then try to directly teach those skills. So, the example we showed on the NBC Today Show was if you want a child to look at you, you can prompt the child and touch his chin and reinforce the child with external rewards for looking. Or you can do as we do in the DIR/Floortime approach: Try to look for what emotions give the child pleasure, what experiences are tied to those emotions, and if the child is interested in a shiny, blue rattle, for example, you might put that on your head, and the child beams with a big smile and he reaches to take the blue rattle that he wants off your head – but that gets him looking at you. There's a natural internally motivated looking through the pleasurable affect or the pleasurable emotion the child has.

Now, in talking about this I'm really introducing the approach that we take in the DIR/Floortime model to building social skills and why it's possible for a subgroup to develop high levels of social skills – including high levels of empathy, high levels of reading and responding to complex emotional and social signals, the ability to negotiate with peers and have deep friendships and to tolerate disappointment, and even to be assertive and angry, and certainly to show a lot of curiosity – why it's possible for some children who are diagnosed with autistic spectrum disorders to develop these skills. In our view it has to do with how you approach the child and it has a lot to do with the way parents, educators, and therapists work with the child throughout the years of the child's development.

So, we have two factors operating: On the one hand we have the child's basic challenges – and children do have different degrees of neurologic and biologically based challenges or impairments that do influence, obviously, how fast they progress and the level they progress to, although we're seeing, nicely and interestingly, even, for children who progress more slowly that progress can continue and continue and continue. We don't see any ceiling, as long as the intervention's continuing. What we're finding, now that we're following children into their adult years, is that the progress continues into the twenties and even thirties. I hate to confess I'm that

old, but we've worked with many older children and adults and seen progress pick up when we institute a comprehensive and developmentally based and relationship-based program.

How is this, then, to occur? And, how should we systematically think about the development of social skills in children? So, let's go through, now, this approach more systematically. Let's start by going through each of our six stages (and then we're going to talk about three advanced stages that have to do with more advanced social skills) and show how – as we help a child master each of the foundation pieces, each of the goals, how we help the child simultaneously develop their social skills.

In the DIR/Floortime model, remember, we're not focusing on a particular behavior, like looking at someone's face or saying, "hello," or knowing how to answer the phone, or knowing how to greet someone at a social gathering by shaking his hand and looking her in the eyes. We're not focusing on that. Those are discrete behaviors. We're focusing on development much in a way that a child without challenges develops these skills. No one teaches a child explicitly to say, "hello." The child kind of picks that up. They hear the parents doing it. Why does a child normally say, "hello"? Well, they feel a warm feeling in their gut, they've seen people with that warm feeling saying, "hello," or use some other social greeting. The smile is natural when you feel warm and happy, so when Uncle Charlie comes over – who's always fun to play with – two-year-old little Sally gives Uncle Charlie a big smile, maybe a hug, and if she's verbal by this time, maybe a "hi," and they're off and running and playing together. It occurs naturally as language is being acquired, and that's the way language is acquired. It's acquired through interactive learning, a little imitation or copycat, and a lot of back-and-forth use in social contexts.

So, in normal or healthy development it's the internal affect or internal emotion that selects the behavior – the hug or the big smile – and that then gives a word like "hi" real warmth and real meaning. If you teach it externally with an external prompt to get it going, you're then hoping that that "hi" will eventually take on meaning and be pleasurable and be hooked up with the emotion because unless it's hooked up with the inner emotion it doesn't generalize. One of the complaints parents have about approaches that are very structured – whatever the approach is – is that the behavior can be learned while sitting at a desktop in a situation where the child is being rewarded, but doesn't generalize and doesn't have that ring of spontaneity or warmth or naturalness. So, even among the more structured approaches there's a movement more towards fully "incidental learning." But it's still – even the incidental learning, which is more taking advantage of spontaneous opportunities – it's still framed in this paradigm or this approach, which starts off with learning discrete behaviors rather than building healthy foundations.

So, the first point and the first principle is that for healthy social development – to develop social skills – you have to build the foundations from the bottom up for a healthy social relationship. You don't become an eight-year-old who can be out on the playground and negotiate with three different children simultaneously – one of whom is making fun of you, another of whom is welcoming you to play soccer, and a third of whom is flirting with you – you aren't able to negotiate that complex social situation – or as an adult, you're unable to work the party on the political circuit when you're running for governor – by learning specific behaviors. Why? Because there are six zillion of those behaviors you'd have to master and there's no time for learning each one separately. Even if you did, you'd still come across mechanically, which is what parents describe for children who have had approaches to social functioning that use these more mechanical approaches.

So, you've got to go back and learn things in the way in which they're ordinarily learned in healthy development. The difference is, if a child has an autistic spectrum disorder or other developmental problem, we have to create that normative learning pattern in a different way and we do it by the principle we've talked about before – by tailoring the interactions to the child's nervous system. If they're sensory over reactive, we're more soothing; if they're under reactive, we're more engaging; if they're stronger visually, we play to their visual system a little bit more. We tailor it to their nervous system, but we build the building blocks, we build the foundations for healthy social functioning from the start by helping the child move on that normative trajectory. In other words, we don't try to teach the child in a different way, we teach the child in the same way that a child without challenges is learning, but we do some different nuances by tailoring to the nervous system. We try to give the child much more practice, and we create heightened states of affect – heightened emotionality – to help the child use and connect their emotions to their behaviors, which is the missing piece, as we've talked about in prior shows, in children with autistic spectrum disorders. So, we create heightened affect by following the child's natural interests and lead, we tailor it to the child's nervous system, and we build a foundation from the bottom on up. We don't focus on specific behaviors, but we focus on broad capacities, like the ability to engage with warmth and the ability to interact purposefully. When the child masters the broad capacity, they automatically, then, get the specific behaviors.

So, that's by the way of the general principle. Now, how do we translate that into action, into an actual program for social skills? Now, let's go look at each of our stages and show how we build social skills into them. Let's look at the first stage, where we're working on the first capacity – and this could be in a four-year-old or an eight-year-old or a one-month-old baby: It's that a child needs to be regulated and focused. In other words, to have social skills, a child has to be able to see the world, see the faces, see the actions, see the behaviors of other people, hear the intonations in their voices, and see differences in facial expressions. To do this they have to be kind of calm and regulated, because if you're agitated or overwhelmed, you're going to be in what I call the "catastrophic mode," where you're either going to withdraw, or get impulsive, or get very distractible because you're overwhelmed or underwhelmed. So, you have to be calmly regulated and focused and attentive and take in a broad range of sensation to what you see, what you hear, what you smell, what you touch. You're going to have to begin feeling your own affect, your own emotion, as part of that sensation – to develop awareness of your own body's sensations. That's the first stage of being calm, regulated, and interested in the world.

So, with children of any age, we have to say, "Is this capacity in place, and if it's not in place, how do we promote it?" That's the first step in social skills – to be able to see the social world and focus on and attend to the social world outside you. With a new baby, obviously, it's Mommy and Baby playing looking games where the mommy is moving to the left or right or little "peekaboo" games.

With a five-year-old child who hasn't fully mastered this, it may be the same thing. Mommy or Daddy may be doing Floortime with little Johnny or Susie, and is focusing on, "How do I promote little Johnny or Susie feeling good about being with me, enjoying looking and listening to me, and seeing my face and hearing my sounds?" So, what experiences give them fun? What objects are they interested in? Maybe they're lining up red and blue cars in a line. Okay, if I simply help them and give them another red car, what are they doing when I give them a red car? They might look at me to get the car, and I take the car and hide it in my hand for a second, and they have to reach, now, into my hand to get it so they're looking at my face and my hand. I may give them a sound to indicate, "Uh-uh. It's in the other hand! Look in the other

hand!” If they have a little bit of ability to discriminate sounds – and most children with autism will have at least some limited ability – they’ll follow my face or follow my hand pointing to the other hand and my voice indicating, “look in the other hand,” and he’ll look in the other hand and get the red car and then line it up. But what we have now is a moment of social interaction. This is sometimes that little unit that’s sometimes called “joint attention,” by our colleague Peter Mundy, who developed that term, and that’s the ability to look at the toy and look at the parent and behave with both of them at the same time. Well, joint attention is really this first ability, and we talk about it also in terms of being able to take an interest in the world that’s emotionally, affectively generated. That’s the first step: Becoming interested in others outside yourself because you’re trying to do something and they serve a purpose for you.

Now the second stage, or the second capacity, really, is engagement – a warm, loving, trusting, engagement with others. To be social, you’ve got to be comfortable with other human beings. If you learn to interact mechanically and it’s unpleasant and you basically prefer the computer and you basically prefer the world of objects to the world of people, how can anyone expect you to become social when you don’t like the very enterprise you’re expected to become good at? Again, you can learn a few moves mechanically, but it’s not going to get you through the “playground politics,” as we call it, of an eight-year-old, and it’s certainly not going to get you to work a cocktail party as a 35-year-old. So, here, you’ve got to literally fall in love with the world, with the world of humans. That comes first with your caregivers, your trusted people. Again, here, Floortime play – where you build on the child’s natural emotions and interests, find what gives the child pleasure, tailor the interactions to the child’s nervous system – draws on the child’s needs for that pleasurable interaction. So, here we’re going for the gleam in the child’s eye, the big smile. If the child hasn’t mastered this, this is a foundation piece and you can’t relate to peers until you relate to a caregiver.

So, here, to carry our on with our example: You’re playing a little game where your child is trying to get that blue car to line it up, and you put it in one hand or the other, or you might do something kind of funny – you might put it on top of your head and the child maybe has a gleam in his eye and a smile as he takes it. Or you might take the car and put it in a funny position, upside down, maybe that child will find that amusing. You might hide it in your shirt. Each child will have a different ticket – one child will be more visual, with one child you give him more auditory or sound cues, with one child you make your voice more soothing, and with another child, more energizing. What you’re trying to do, though, is look for the gleam in the eye, bring out the smile, and be a very playful, enticing human plaything for the child. What you do is you join in the physical world of the child that the child may show initially a preference for. So, instead of competing with it and sort of trying to extinguish the preoccupation with the toy and getting him to look at you with prompts and external rewards, instead, you say, “How do I join that physical world?” Let’s say he’s preoccupied with the computer – “How do I help him use that Internet? How do we make it more interactive?” So, he’s enjoying me because I’m helping him towards his goals and, eventually, he enjoys me for me.

The third level is two-way purposeful communication. Now we’re starting real social skills in the formal sense of it. The first social skill is really being a two-way purposeful communicator, but that doesn’t mean mechanically repeating or copying a task, like showing a child how to put a ball in a box, or how to put a square block in a square hole, or a round ball in a round hole – that’s playing copycat, that’s not two-way back-and-forth. By two-way back-and-forth communication – purposeful two-way communication – we mean a long chain of back-and-forth interaction, where you’re exchanging sounds and vocalizations, just like an eight-month-

old baby might with a parent under ordinary circumstances, back-and-forth babbling. Well, you can do that with a five-year-old with an autistic spectrum disorder who's not yet verbal. We can make sound games back-and-forth. We can exchange gestures back-and-forth.

To come back to our example of hiding the car in one hand, the child opens it up and doesn't see it and then switches to the other hand, open it up and sees it, and then gets it. Next time, you can go back-and-forth three or four times. You can put it behind you. You're always titrating the child's curiosity, interest, and persistence to see how many circles of back-and-forth interaction you can get without the child getting frustrated or too annoyed. So, he can get a little bit frustrated so he gets assertive and curious, but not so frustrated that he gets annoyed. So, you want it to be pleasurable, but with a little "oomph" behind it.

It could be another game, a little peek-a-boo game around the door. The child wants to go outside the door, we need Daddy to help. Where's Daddy? The child pulls Daddy to the door and helps open the door and the door is still stuck, so Mommy and Daddy have to do it together. Meanwhile, you've got ten circles of back-and-forth communication, all guided by the child's purposeful interactions with Mommy and Daddy. Now the child is learning to be a social communicator and even getting into what we call our fourth stage, which we call "shared social problem-solving," where Mommy and Daddy are helpers to open the door, or where the child is bringing Daddy to the shelf and gesturing with sounds and maybe with arm movements, even if a child can't point yet, for Daddy to pick him up to get that toy. Now we have shared social problem solving, but the social part of it is there are 15-20 back-and-forth interactions between Daddy and little Sally, whether she's five years old or fifteen months old, and that's the beginning of complex social negotiation. Now, in that, Daddy's being very animated and he's shaking his head "No, I can't do that," and "Yes" (a big up and down), "I can do that." Well, what is little Sally going to do? She's going to read his facial expressions and his tone of voice and the emotional intonation in his voice because he's giving her all kinds of clues as to what he can't do or can do to help her get her toy.

So, what you do is you create complex social interactions that are mediators between what the child wants to do and the child satisfying his goal, whether it's lining up his cars or opening the door or finding the toy or getting the food out of the refrigerator. If you want to create little obstacle courses where the child needs your help to negotiate to get a desired end product, whether it's a toy or an activity or getting outside, this is great because then the child becomes a complex social negotiator and has to read your facial expressions.

So you don't want to make it just where he has to understand your language – where he just has to understand what you're saying – because then you're limiting him to practicing auditory or language understanding or discrimination, you're not actually helping him read nonverbal, social signals. Being a master of the playground or a master of the cocktail party later on, or a master of friendships, is going to depend on subtle reading of emotional cues and signals. Because what distinguishes a child at age eight who is a socially "appropriate" person from one who's not? Well, the one who gets in other children's faces, who doesn't read the body posture that says, "No, no, not now," doesn't know when a joke has worked or not worked – that's a child who seems "awkward" or "rigid" or not socially "with it." On the other hand, a child who's reading these subtle signals and cues is socially "with it."

Well, it doesn't start at age eight and you can't teach it by a social skills group with scripted answers to questions. It comes through these foundation pieces, and these foundation pieces, we're finding, can be learned at any age, but you've got to work sequentially up the ladder. So shared social problem solving, then long chains of back-and-forth communication. If

a child can't do 50 or 60 circles of back-and-forth gesturing in a row with or without words as part of a complex interaction, then the child is not yet ready to master complex social situations because all complex social situations require reading social signals as part of a continuous flow of 50-plus circles of back-and-forth communication involving facial expression, voice intonation, body posture and everything else that conveys emotional signals, as well as understanding the meaning of the words – but the meaning of the words is really the icing on top of the cake.

So to do that you've got to get to this level four, and it's got to be solid. Routinely, what I've found with older children who are quite verbal – maybe doing well academically, but are having social problems, even with children who have never been diagnosed with autism – they basically don't have full mastery of this level four, they don't have a continuous flow of interaction when it comes to subtle and complex emotional and social signals. So, you've got to work on this basic level, and it's as simple as long stretches of play with Mommy or Daddy and then with peers, where there's a lot of two-way back-and-forth communication, where the child is getting a lot of practice and experience in reading and responding to gestures of all the kinds we mentioned before.

Now, then we get to our fifth capacity, which is using ideas. To be able to be socially competent and have social skills you've got to use ideas in a very special way. Again, simply scripting an idea and reading a book and repeating it, memorizing phrases, is in many respects just counter productive. Many colleagues feel the only way you can sometimes teach children social skills is through imitation and through structure at first, and then they can apply it more spontaneously. That, I think, is entirely wrong – not just partially wrong, but a hundred percent wrong. It's got to be the other way around. It's got to be learned spontaneously and, in fact, the more challenging the child, the more we have to approach the child through heightened emotion and through heightened pleasure and through heightened opportunities for spontaneous interaction.

Occasionally, we can teach some fundamentals in structured ways, like getting some imitation cooking, which is a fundamental. We can do some oral motor work to help the child use more sounds in a more structured way. We might help the child with a few other very narrow kinds of skills in some structured manners, but they have to be very limited and only a very small part of the child's day. The lion's share of the child's day has to focus on spontaneous affect and emotionally generated interactions so that the emergence of ideas is off the child's emotions or affect – is felt, and is spontaneous and creative from the beginning – or else the child starts going down a pathway (and it's hard for a child who already finds it easier to memorize things) and we're just reinforcing a pathway that may already be neurologically easier for the child, rather than building the new pathway that we have to. It's just delaying the inevitable, and it's also moving the child further along on a pathway that may look good temporarily if the child can script a few things to say "Hello," when they greet Uncle Charlie, and that looks appropriate, but that superficial "looking appropriate" doesn't build that foundation piece we need.

So, when we start using ideas we want the ideas off heightened states of affect. We want the "hello" to be because you feel warm inside. So, pretend play becomes a great vehicle – the dollies are feeding each other or going for a ride in the car – and language is built off pretend play. Language is also built off natural wants and desires and needs the child has. He wants a juice, "What do you want? Juice or milk?" "Juice, Mommy, juice." "The big one or the little one?" "The big one." If you want to teach the child the difference between "up" and "down," "Well, where is it, up there or down here?" If you want to teach the child "behind" and "next

to,” “Where’s the car you want? Where’s the juice you want?” So it’s an object of desire and we build a lot of vocabulary around problem solving to get that object of desire. We call that applied Floortime or problem-solving interactions.

But what are we doing when we’re doing that? How are we teaching social skills? In doing that we’re teaching a child to use ideas and words off their emotions. So, when the child now is ready for peer play, and often this is a time we introduce peer play, around the time the child is able to get into a continuous flow of back-and-forth interaction – our fourth capacity – and enter into using ideas creatively. “Juice, no, yes, give me more, open” (i.e., the door). As the child is able to do that, you start introducing four more peer play dates a week and the parent or the helper or the teacher or the therapist – and get two children doing this with each other. So, now the child is not only reading the other child’s emotional and social gestures, but beginning to use words meaningfully. “My toy. No! No touch.” That might seem negative, not nice, impolite, but the child is talking from the heart and he’s using language meaningfully.

If he’s going to work the playground, or work the cocktail circuit later on, he’s going to have to use language meaningfully. By that time, he’ll become more politic about how he uses language. He may not say, “No, it’s mine.” He may say, “Look over there,” and take it when you’re not looking, if he’s a good eight-year-old. So he may have a more socially skillful way of getting his way, but he’s got to use language meaningfully. He can’t use scripts. As soon as he starts using scripts with his peers at age eight, the peers know it. They’ll say little Johnny is a little different and they don’t even know why he’s different, but they’ll know something is different about little Johnny. So, language has to be used meaningfully in order to be able to tell jokes, to tell somebody you want them to come over your house to play, and in the play to be able to laugh and smile and say, “No, no, you’ve got to do it this way or you’ve got to do it that way,” or “That was a great joke,” or “Oh, that’s baaaaad – that’s an icky joke” – whatever it is in the dialog. Or just to share looking at cartoons together, and giggling together and talking about how much you liked this one or that one, or whether that movie was cool or not cool, or this kid is cool or that kid is cool, or to deal with the teasing that’s going to occur – you’ve got to be able to use language meaningfully and spontaneously.

So, at level five to build social skills you’ve got to have meaningful use of ideas so you can exchange social communications. Social groups that are used for older kids to get this cooking can’t be structured exercises, you know, with greeting rituals or opening lines. They have to focus on natural, spontaneous conversation, even if that natural spontaneous conversation first seems very awkward and it may seem off-color. Correcting the person and saying, “No, don’t say that, say this,” is completely the wrong thing to do. What you do is you just get a lot of back-and-forth interaction going. Through the interaction, through the facial expression of the other person, the individual figures out what is bringing pleasure and what’s not bringing him pleasure, what is getting the social response they want, and through trial and error, through feedback, they begin learning how to socialize their language.

This is what happens in ordinary development. Here we’re still going to have a hard time with this because of their language problems and because of that, the more fundamental problem we talked about earlier – the problem in connecting their emotions through their motor system and through their ability to plan actions and now to their ability to use ideas. This is where we believe are the core challenges for children with autism – in connecting the emotions and the affect to language, on the one hand, and to motor patterns, on the other hand, to give it meaning and direction. We have to overcome that challenge by giving extra opportunities for practice with heightened affect while we’re tailoring to the individual differences of the child. That’s

where we come back to that principle and what we've found is that even though some of the main highways may be blocked, the side roads are available to the children. The side roads are very open to the children, so we can develop the side roads, more for some children than others, and some get to very high levels. So using ideas has to be creative and spontaneous.

And then we go up the ladder, once we have spontaneous and creative use of ideas, then we get to using ideas logically, answering "why" questions. "Why do you feel happy? Why do you feel sad? Why do you want this? Why do you want that?" connecting ideas together. This, too, has to be done spontaneously and logically, and now a child can tell another child why he wants to play with this toy, "Come on, this toy's more fun than that toy. Let's play this," or "We'll play this first, and then we'll play your game." That allows for social negotiation – the ability to connect ideas together. Again, you don't have that unless you do it with caregivers and then in your four or more peer play dates a week, where you're connecting ideas together. You have to be able to read the ideas of the other person, compare them to your ideas, and respond like everyone does, and that's part of the foundation of social negotiation.

Then we go to higher levels, where the children are learning what we call "gray area thinking" and "comparative thinking" and what we call "multi-causal thinking," where you can tell your friend three reasons why you want to play Nintendo first and then go out and run around on the playground. Also, gray area thinking is important as you get into what we call the "playground politics" stage, where as an eight or nine-year-old, you may be the first one chosen for a math team and the last one chosen for baseball because you don't hit the ball that well. You've got to know your position in this larger social network, you've got to be able to see where you are in terms of your relative skill levels. Telling jokes, you're number three. Math, you're number one. Baseball, you're number ten. Popularity, you're number five.

Any kid eight or older can tell you exactly where he is on ten different dimensions, but to size yourself up and know how to negotiate, you've got to now not only be able to communicate with other children using ideas creatively and spontaneously, and read their nonverbal gestures, you've now got to be able to size yourself up vis-à-vis this complex, larger group. That's why all these foundations are important – you've got to get to causal thinking and then get to what we call comparative thinking and gray area thinking, where you see shades of gray. "Well, I may be number ten in baseball, but I'm number three in sense of humor and I'm number one in math, and maybe if I work my baseball, I'll get to be number six in baseball." So, that's part of understanding your role in the social group, it's part of participating later in a complex society. This won't happen overnight. This builds gradually on these other skills that we're talking about.

Then you finally get to a very advanced level of social skills we call "thinking off an internal standard" or "thinking about thoughts," which you don't get to until about age nine or ten to twelve, where you can actually live in two worlds at once: "My peer group wants me to be mean and tease Charlie, but I think it's wrong and, therefore, I'm not going to do it, and it may make me little unpopular temporarily, but they'll deal with it and I'll deal it." That same principle may occur as a teenager when you're deciding not to use drugs, or not to drink alcohol, or not to do risky behavior, where you can think in two worlds at once, where you can evaluate your own thoughts and feelings. You can say to yourself, "Gee, I got carried away. I was a little too aggressive in that situation," or "Gee, it's not like me to be so shy. I wonder why I feel so scared today." That allows you to negotiate more complex social situations and be a reflective thinker. That, again, builds on all these other stages.

Now the remarkable thing is when you approach it this way and you give children extra practice – so the key with children with autism whom we want to master all these skills: extra practice tailored to their nervous system, heightened affect, and lots of opportunities to work in this spontaneous way in situations that are natural and spontaneous – when we do that we found a subgroup can really master these higher levels. So, now we have a follow-up study – a 10 to 15 year follow-up study on children with autistic spectrum disorders – of a subgroup that has done very well. We’ve just looked at 16 of these children in their teen years and they’ve maintained these skills and have advanced social skills, they have good friendships, they’re empathetic, they’re reflective, they’re doing well academically, for the most part, and they’re – most impressively – very sophisticated in their social negotiations, and all have friendships and all are part of a social peer network with kids who’ve never had challenges. So this is, we think, quite remarkable that a subgroup can do this.

Children who are moving more slowly – who aren’t quite in this subgroup that is mastering this highest level, whatever level they’re mastering in their language development and in their cognitive academic skills – they’re also mastering their social skills. So, it may be not quite so an advanced level, but they’re warm and engaging, for example, and they can read emotional signals. They say, “hi,” or flirt with Mommy and Daddy naturally and spontaneously, or flirt with some other children. So, what we’re seeing is a more natural pattern rather than the expected rigidities. Now, some children still have some of the rigidities and some of what’s sometimes described as “social awkwardness,” but there we’re finding that it’s proportional to, again, both the biological and neurological challenges and the way we work with them. Even though we try to work spontaneously and try to practice what we preach, we’re not always as successful with every situation and every child.

So, the key message is: All children can develop social skills on a continuum and some can develop very high levels of social skills, some lesser levels, but even those who develop more slowly develop in a warm and spontaneous and more joyful way, and a more natural way, and what holds them back might be the language and some of the cognitive skills.

What I want to do is have my colleague, Serena Weider, Ph.D., join in, and add some thoughts – I went a little longer than I expected, but it’s a complex subject, but now, we’re going to invite Serena to come in and add some further thoughts on this. Serena?

**SW:** Good morning, good morning everyone. Yes, I think you covered really the basic framework, which I think is so important. As you were speaking I was thinking about how we can really help parents get this started and to compare our approach with some of the methods that are used out there and offered so there’s a better understanding of what might work for your child.

Let’s go back to some of the ways I think that parents need support starting those play dates, starting the social experiences. You were mentioning of course you are your child’s first friend and play partner. In many ways when you play with a child it’s very important to play like the kids you want your child to be playing with. You want to be and act like a kid and speak like a kid, “Hey, no, it’s mine! What do you want? That’s not fair!” You want to bring to it that higher level of affect that comes from another child, and also use the social language a child would use. If you need to come in as a parent you can come in with the other voice. Now, this works very well if the child is able to use figures or a little teddy bear or their a favorite character because you can step out and help the child to understand what this other character wants or agrees with or doesn’t agree with. But, the basis for it of course is the pleasure and the fun of playing, whether it’s at a sensory motor level or, later on, a symbolic level, and then really being

like that other kid. This way your child begins not thinking of you as asking a lot of questions only, but also, representing, “Hey, this is fun. I could learn to do this. I can get my way, I can let the other person know what I think or want or like.”

So, be a player. Be the kid you want your child to play with. Depending on the level of your child you can also plan ahead as you have these play dates. Often I’ll hear, “Oh, yes, well they start, but then they drift apart into parallel play and go in different directions.” It’s very important to be a mediator in these early social interactions. You know, be in there as one of the guides, be your child’s partner. You could hold his hand as you’re playing “Red Light/Green Light” or you can do Musical Freeze and be one of the kids who’s also in there because you can keep bridging and connecting and bringing in that shared attention, “Hey look, look what David’s doing!” and where the child may not do the bridging, by being one of the crowd you can let your child kind of run with the crowd. So, you do want to be able to have someone there – yourself or someone else – to mediate and help that flow go, and help the children stay connected as long as possible.

One little method that often helps is really anticipating with your child the friend coming over. This does not mean you set up a schedule or you picture they’re going to do this, this, and that. But it’s often very helpful to kind of frame and anticipate that friend coming and you may think of, “What are some things you may enjoy doing?” By talking this over, by even drawing little pictures, “Oh, will you blow bubbles? Should we run in the sprinkler? Would you like a snack? Are you going to the climbing equipment in the yard?” But having a few ideas, even representing them in pictures, gives you something to fall back on, and as the child learns to negotiate they can also invite their friends to do what they would like to do. It doesn’t matter if you ever do any of these things because the principle really is to follow the spontaneous flow and interest. But when you get stuck or when it doesn’t seem as if the kids are connecting, it sometimes serves as a way to bring them back to some of their ideas and thoughts that they had before. So, this little plan is just a way of organizing and anticipating.

It also relates to this notion of creating the concept “Hey this is my friend,” and one of the nice ways that children meet other children, especially if they’re still preverbal and don’t have language, they can still have the visual images of that friend. Taking pictures of the child doing things with his friend can accumulate and you could create a little book, “My Friend, David,” or “My Friend at School,” but always have some kind of interaction represented in that picture because, again, it becomes a way to talk about what they enjoyed with their friend, what they might like to do next time. Build the language, point to what was happening and use the word “friend” and use the term “play date,” and give the child a way to look back at this as well as kind of look forward to it.

There are other small things I always notice when parents tell me, “Well, in interaction should we just take turns?” And that’s something I’d like to mention because you have to be careful with taking turns. Yes, it’s a very important social skill, you might call it, and many games are turn taking, but I think if you try to regulate the interaction through turn taking, it can really dampen the spontaneity. It can really dampen the child’s being able to say what he feels.

So rather than just take turns, take turn, take turns, and try to think of what are the early negotiations. A very simple one is trading. Dr. Greenspan was mentioning, “Well see what hand this is in. See if you can find it here or there.” But the next level was trading with someone else. “Hey you want this? What will you give me for it? This is the typical solution we’ll tell any child who has a younger sibling or a baby: If they take what you have, give them something else and then you can get back what you want. So, think in terms of trading. Think in terms of,

“Hey, maybe I can think of something they’d like better,” and then think of “Hey, what does that child like?” putting yourself in his place, and you can get another toy or object you can negotiate with. Maybe you might do it together. So, rather than the concept of turns, because you can take turns forever and never really interact, you might do something together because that, again, brings it into a different scheme of that back-and-forth and negotiating how do we do this together.

Sometimes you can’t work it out. I think it’s very important to make sure children have support when, in fact, they and their friends can’t agree or they disagree, or they just have to wait, or they can’t work it out and neither of them gets to the point where they actually do what they thought they wanted to do, and they talk about that feeling and kind of understand the consequences of not really appreciating what their friends also want or not being understood by their friends. There are many ways to negotiate these early interactions that happen all the time that can help your child go beyond the turn taking.

When it comes to groups, group interaction – I know there’s a premium on social skills and I just want, again, to emphasize the dilemma with treating social experiences and interactions in a skill-based way for all the reasons we heard earlier. There are few opportunities where we all sit around the table and say “hi” to everyone, and then share something we brought in a structured, organized way. The other form you might think of is a group experience where there is support built in, and where we can heighten the affect, which is an approach I think we prefer, and that takes more the form of drama – having a little drama club, an imaginative kind of playtime.

So through those little dramas – and they’re usually kind of a creative drama when you start out – children will again have a way to get those additional skills and cues, because what is drama all about? You’re heightening all the affect, heightening the gestures, giving dirty looks, you’re showing surprise. It is a really nice way to have children come together to express or play out a drama. Sometimes, it can be a story they all know, sometimes it can be something they create, sometimes it can be a club where someone puts their head into this little magic drama box and pulls out an idea. So, again, depending on the level of whether it’s an actual “drama class” or an imaginative play class, or whether it’s just a regular play date or kids just coming together and figuring out what they’re going to do, the heightening of the affect and the drama of whatever you’re doing is very crucial, and this approach works very well once children really are sharing symbolic ideas in the levels of five and six and further.

**SG:** Serena, let’s just in the few minutes we have, provide some suggestions. Let’s say children are already five to eight years old and have some language skills and have some interactive skills, but are not reading social signals well and tend to be a little more scripted or repetitive in their actions, and so we want to help them master these foundations that we’re talking about for more flexible interacting and reading of social and emotional signals. What kind of games or activities might we encourage parents to do, either when they invite another child over or when somebody’s running a “social group” or social group program, what sorts of things come to mind that might be helpful to get these foundations cooking so a child more naturally reads and responds to social signals?

**SW:** Well, one way, actually, is moving to games that are more gestural – that don’t even use language. I really like to turn to games that are more charades based, like Kids on Stage, Charades for Kids, or Step on It. These all require a lot of gestural imitations.

**SG:** Could you give some concrete examples?

**SW:** Those are games you could just buy.

**SG:** Right, right, well take one of them that you like the best and . . .

**SW:** Okay, let's say if we could, if we could, on a very simple level – children could pretend to be having a meal. In fact, one of the things I sometimes recommend is that parents, when they're having dinner time, spend a few minutes not talking and see how much they communicate with their gestures. If they want something more they could point to what they want, they can show a little bit, or a lot, or object to someone else getting too much. Simply acting, not talking, will help a child look at the other person.

**SG:** So, it's sort of a pantomime game.

**SW:** It's a pantomime game. Sometimes I even encourage getting a hold of a Marcel Marceau tape. It's great to watch and see what the children get out of it because it's so wonderful for all of us, "Wow! Look what he can say without words!"

**SG:** So, one game would be for two or three kids would be a pantomime game.

**SW:** Yes, and it could be on any level. Take Kids on Stage – kids just have to pick out a little drawing of something and they can act it out. "Oh, you're taking a drink or you're getting dressed or you're drawing and making a picture." In other cases it could be more complex.

**SG:** Okay, Could you think of a more complex one? That's a good one.

**SW:** That's a very nice one, to move back into the gestural to focus on the cuing and that way you get the child to look at you more naturally. Some of the other games – and I'm thinking of more semi-structured games – would be where the game itself requires collaboration.

**SG:** For example . . .

**SW:** Well, let's say you're doing relay races and you and your partner have to really signal – you have to show the other person, "Hurry!" or "Come on," or "Get this or that!" Here, you could be your child's partner or you could have two kids on a joint mission, or a scavenger hunt.

**SG:** Yes, a scavenger hunt is a great one.

**SW:** A scavenger or a treasure hunt, and you have a way again of collaborating, using different clues. The clues can be verbal or nonverbal, and they could involve lots of pointing or different levels of signals, whether you're using something verbal, like "Oh, it's on your bed, or where you sleep," or "It's where you go when your hands are dirty" and whatever else. Or it can simply, again, be much more with visual clues. Setting up collaborative kinds of tasks, if you can get a little team, also works nicely and you can use a sibling or yourself, as the partner.

**SG:** Or a simple game of hide-and-seek where three children have to decide where to hide together and you're going to find them but they have to negotiate.

**SW:** Exactly. And they have to really help each other so they don't give themselves away.

**SG:** So, from scavenger hunts to treasure hunts where one is allowed to give clues but maybe they have to do it all with gestures or hide and go seek games. But we're going to have to wind up Serena.

**SW:** Let me mention just one last thing, which I think children really love, which is actually very meaningful, which is actually doing real work. You know, wash the car together! Do tasks where there's a sense of accomplishment but, again, you have to have a lot of negotiation, who does what and what do we do first and second, and so forth, and that also has a lot of purpose and is something to be proud of and is not just kind of a paper project, but something that will really be useful.

**SG:** Right, something that teachers can do at school is a lot of joint projects with children working together to do an art project or a history project.

**SW:** On one paper instead of everyone having his or her own.

**SG:** Exactly. So, the key idea here is that we want to promote the child wanting to take into account the external world – focusing on the social world – and that means making the social world interesting and pleasurable by tailoring it to the child's differences. It can't be overwhelming to the child – you can't have a noisy environment for a sensory hypersensitive child or an environment that's too low-key for the child who's under reactive.

So we have to tailor the sensory environment to the child to get his interests cooking in the outside world, including the social world, and you have to provide relationships – first with caregivers and then with peers – that are enticing and warm and pleasurable. Then we have to get back-and-forth signaling going, as Serena was just saying, and gesturing back-and-forth between children, as well as children and adults. Then we have to use language with meaning, invested with emotion, and then we get problem solving use of language or connecting ideas together where the key is having the child pay attention to what the other person has to say, not just their own inner thoughts. Then we get into more complex aspects of reasoning, multi-causal thinking, gray area thinking, comparative thinking, and finally thinking about thinking – thinking off an internal standard and being able to evaluate your own behavior and moods. That's the trajectory that we need for high-level social skills – always applied to peers, always applied to gradually increasing social groups, but initially just one-on-one and then one-on-two. Then by the time you're seven or eight if you've mastered this – but if you haven't, maybe not until you're 10 or 13 – the larger social group.

So, the key message is: Tailor to the child, heightened affect states, and build the foundation pieces. Social skills can't be learned from the top of the pyramid. Social skills can't be learned from the top-down. It has to be a bottom-up approach and that bottom can start at any age.

Thank you for joining us today and thank you, Serena. Next week we'll start the series we were going to start this week unless there's an exciting topic that comes up that takes our attention, and we always want to follow the lead of our emotions, so we can always have a change. Right now we're scheduled to talk about general rules to live by, rules that characterize relationships in families that have a number of principles to them that will help with the overall goals we have for all our children – children with special needs, as well as children without special needs. So, we'll look forward to communicating with you again next week and thank you for joining us this week. Serena, thanks again.

**SW:** Sure, bye bye.

**SG:** Bye bye.