

TRIAD RESEARCH READER

SPECIAL ISSUE ON JOINT ATTENTION

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What is Joint Attention?

“Joint attention” is a term used to describe a child’s ability to shift his or her visual attention between another person and an object or event of interest. When children respond to joint attention, they follow another person’s focus of attention. For example, an adult may point to a hot air balloon in the sky and say “Look!” to direct the child’s attention. If the child follows the adult’s point, we say that he or she is responding to the joint attention bid of the adult. When children initiate joint attention, they are trying to get someone else to pay attention to something they’re interested in. For example, a child might hold up a piece of artwork that he or she made, to show it to an adult. Or a child might point to a hummingbird, to get the adult to look at it. Children initiate joint attention for purely social purposes, to share an interest or experience with an adult.



Joint Attention and Autism

Children with autism spectrum disorders often have difficulty initiating and responding to joint attention. They may be less likely to look in the direction that others are looking (i.e., following the eye gaze of another) or to look in the direction that another person is pointing (i.e., following a point). Because they are not sharing this visual information with adults, they may have fewer opportunities to learn from others about the objects and events in their environment. The same is true for initiating joint attention; when a child points to or shows objects to an adult, the adult often responds by talking and paying attention to the child, behaviors that can foster language development. Children who do not initiate joint attention therefore have fewer opportunities to obtain language input from adults. Research studies have found a link between joint attention skills and language development in children with typical development as well as children with autism spectrum disorders.

Joint Attention Research Project

Electroencephalography (EEG) has been used to measure social interest and to predict the development of joint attention skills in young children. In 1999, Lynnette Henderson and Paul Yoder (Department of Special Education) found that the frontal brain activity of typically developing 14 month olds could predict their initiating joint attention skills four months later. They are now conducting a similar study with children who have autism spectrum disorders (ASD). The results of this study will have important implications for identifying which children might respond best to different types of intervention.

The current study measures brain activity and social interest in young children. Two groups of children are being recruited for this project:

- Children who have been diagnosed with autism or PDD-NOS who are between the ages of 24 and 60 months old, and
- Brothers and sisters of children with autism or PDD-NOS who are between the ages of 12 and 18 months old.

The investigators are very interested in seeing as many families as possible during September and October. For further information, please call the project director, Tina Patterson, at 322-8276.

Teaching Young Children to Respond to Joint Attention

Activity #1: Teaching your child to look back and forth between you and an object.

Why? 1) To establish a fun routine that involves social looking; 2) To help your child learn to use your face as a cue to what you are thinking and feeling; 3) To help your child learn to share experiences with you.

How? By modeling exaggerated verbal and facial responses to "surprise" events. When unexpected or surprising events occur during the course of the day (e.g., the doorbell ringing, a jack-in-the-box popping up, a music box stopping, a block tower falling over), look at your child, make an exaggerated look of surprise (e.g., raise your eyebrows, smile and open your mouth wide, make a gasping sound, cover your mouth with your hand), and say enthusiastically, "Wow!" or "Uh-oh!". Your tone should be positive. Watch for your child's response. If your child looks at you, you can reward him/her by saying, "Good looking!" or by giving him/her a brief tickle. If your child doesn't look at you, keep trying this during different parts of the day. You can set up play activities so that a surprise event occurs periodically and turn this activity into a game.

Activity #2: Teaching your child to follow your point or eye gaze.

Why? To help your child understand gestures as a source of information.

How? By hiding objects the child wants and teaching him/her to follow your point, head turn, and/or eye gaze to find them. Gather some of your child's favorite toys or objects (e.g., parts of a puzzle, balls to put down a chute, cars to go on a track) and place them in different parts of the room. When starting this activity, the objects should be fairly close to the child and at least partially visible. Start playing a game with him/her so that s/he needs the objects you've hidden. When the need becomes apparent, shrug your shoulders and say, "Hmm, where is it?" Then point to the object and say, "There it is!" When your child is able to find the objects consistently, try turning your head in the direction of the object instead of pointing to it. Eventually you can try just shifting your eyes to indicate the general direction of the object. Be sure to use objects that are highly motivating for your child.

Why is Joint Attention Important?

Joint attention skills usually develop in the first year of life, and represent an important type of communication that occurs between infants and adults.



Adults often try to direct the child's attention to objects or events so that the child can learn something about them. For example, a parent may say, "Look at the red balloon!" to teach the child the verbal label for the color "red." Similarly, a parent may say, "Look at the funny clown!" to let the child know that the clown is safe and fun, rather than something to be scared of. Likewise, children may direct the attention of adults to objects or events to convey information



about them. For example, a child might show his drawing to a parent to convey, "I'm proud of this!" Or a child might point to a hummingbird, look at her mother, and smile to convey, "I like that funny bird." The ability to initiate joint attention usually emerges before the child has acquired spoken language; children can initiate joint attention using gestures, facial expressions, and/or vocalizations. All of these prelinguistic forms of communication can be very effective in getting adults to pay attention to something and to provide verbal labels or other information about it. Thus, joint attention is an important way for children to learn about things in their environment.



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