

Development of Symbolic Language in Children with ASD

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Topics in Autism Spectrum Disorders
and Asperger Syndrome

*In cooperation with the University of
Wisconsin-Eau Claire*



Development of Symbolic Language in Children with ASD

Presented By:

Emily Rubin, M.S., CCC-SLP

Moderated By:

**Amy Hansen, M.A., CCC-SLP, Managing Editor,
SpeechPathology.com**

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EARNING CEUS

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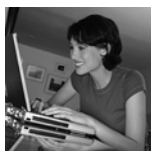
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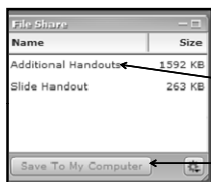
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SpeechPathology.com Nancy McKinley Lecture Series

Development of Symbolic Language
in Children with ASD

Presented by Emily Rubin, MS, CCC-SLP

Development of Symbolic Language in Children with ASD

Session Description

- This course will outline the unique developmental patterns often seen in children with ASD with respect to symbolic language development.
- The impact of neurological differences on language development will be reviewed with an emphasis on identifying critical intervention objectives for children using pre-symbolic gestures, single words, echolalia, and more creative sentence structures.
- Practical strategies to foster more conventional gestures, creative word combinations, and conversational discourse will be highlighted.

Unique neurological differences

- Individuals with Autism Spectrum Disorder (ASD) have neurological differences that make it difficult to predict the actions of other people.
- Studies have shown patterns which lead individuals with ASD to process social stimuli (e.g., faces, speech sounds) in regions normally used to process images and sounds of inanimate objects, making predictions of actions, intentions, and emotions quite difficult.

Unique neurological differences

- When neurotypical children look at people's faces, regions in the limbic system "light up" with endorphins and reward that child. Ultimately, that child begins to follow gaze and anticipate the actions of others.
- Children with ASD tend not to look toward people's faces. Rather, they look at the mouths of the speaker. They miss gaze shifts between people and objects and have difficulty predicting actions.
- Similarly, when neurotypical children hear speech sounds, these are processed as social or intentional stimuli, while children with ASD simply hear sounds, making the intentions of individual words more ambiguous.

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Unique neurological differences

Unique neurological differences

Social Attribution Task Video
Klin, A. (1995)

Ami: Can you tell me about the movie?
Jonathan: Shapes were moving around....red shapes.
Ami: Anything else.
Jonathan: Well, they had circles and they had triangles and a box
that opened and closed by itself.
Ami: Anything else?
Jonathan: Well, they were moving, some in circles and some
around the square.
Ami: Anything else?
Jonathan: Well, it was really well made and the special effects
were really good. I wonder who did them.

Pre-symbolic children with ASD

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Pre-symbolic children with ASD; the impact of neurological differences

- When others are being processed as inanimate objects, it is difficult to predict that a caregiver or teacher is a source of assistance; thus, gestural forms of communication are initially delayed.
- When they do emerge, gestures tend to involve physical manipulation rather than “shared messages” with others. A child with ASD may take your hand and pull you to a location (e.g., the refrigerator) or place it on an object (e.g., a jar of bubbles) to make a request for assistance.
- Gestures which have “shared” messages (e.g., will you help me, will you look at this, no thank you) tend to be delayed. Delayed gestures include: giving, pointing, showing, pushing away, waving, and a head nod / headshake.

Pre-symbolic children with ASD; appropriate intervention objectives

Child will initiate bids for interaction across activities, contexts, and partners using:

- proximity to others,
- simple motor actions / physical manipulation,
- a give gesture to request objects, assistance, or social play,
- a push away gesture to reject objects or activities,
- a pointing gesture to request,
- a show gesture or a pointing gesture,
- a wave, a head nod, and a head shake to greet, request or reject.

Pre-symbolic children with ASD *Appropriate learning supports*



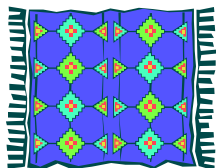
- *Sealed see-thru containers can be used to create a “menu board” during meal routines.*
- *Objectives: initiating communication using proximity, pointing, or giving.*

Menu Board ©2009 by Communication Crossroads. All Rights Reserved. Used with permission.

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Pre-symbolic children with ASD

Appropriate learning supports



- *Objects can be used to represent social routines during play.*
- *Objectives: initiating communication using proximity, simple motor actions, and giving gestures.*

Pre-symbolic children with ASD

Appropriate learning supports



- *Photos paired with music can be used to facilitate attention during morning circle.*
- *Objective: using a wave gesture for greeting.*

Who's at School ©2009 by Communication Therapy, P.C. All Rights Reserved. Used with permission.

Emerging language in ASD

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Emerging language in ASD; the impact of neurological differences

- When others are being processed as inanimate objects, the earliest forms of symbolic language are often object labels (i.e., nouns).
- The most challenging symbols for children with ASD at emerging language stages are subjects (i.e., people's names) and verbs (e.g., action words). This is likely due to a limited appreciation of the intentions of others and limited gaze shifting toward people and between people and objects.
- As subject + verb word combinations are predictive of creative language acquisition, limitations in this semantic relationship lead to a reliance on object labels and rote sentence structures.

Emerging language in ASD; appropriate intervention objectives

Child will initiate bids for interaction across activities, contexts, and partners:

- Using words, pictures, or signs to represent people, action words, modifiers, and a range of object labels,
- Combining words, pictures, or signs to form creative word combinations such as subject + verb and subject + verb + noun sentences.

Emerging language in ASD *Appropriate learning supports*

- *Color coded graphic symbols can be used to represent subject + verb + noun sentences during meal routines.*
- *Objective: initiating communication using subject + verb word combinations.*

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Emerging language in ASD
Appropriate learning supports

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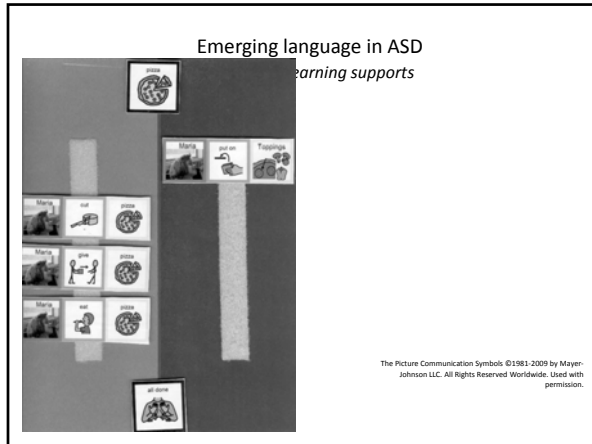
Emerging language in ASD
Appropriate learning supports

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Emerging language in ASD
Appropriate learning supports

- *Graphic symbols can be used within play schemes, cooking activities, or vocational tasks.*
- *Objective: initiating communication using creative word combinations.*

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Conversational language in ASD

Conversational language in ASD; the impact of neurological differences

- Movement toward sentence structures often involves echolalia in ASD (i.e., chunks of language borrowed from others) and/or limited complex syntax to clarify intentions to a listener.
- Echolalia often serves a range of communicative functions; however, it can reflect a limited ability to creatively combine subjects (i.e., people's names) and verbs (e.g., action words) and other linguistic units (e.g., prepositions, pronouns, etc.).

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Conversational language in ASD; the impact of neurological differences

- Similar to the single word level, challenges may be due to a limited appreciation of the intentions of others and limited gaze shifting toward people and between people and objects.
- Even in those individuals with ASD who appear to have strong expressive language skills, the use of syntax to clarify intentions is limited, as evidenced by limited use of subordinate clauses to clarify who was present, where an event occurred, and why an event occurred (e.g., "My grandmother, *who came to my brother's birthday*, brought me a present, *because she didn't want me to feel left out*.").

Conversational language in ASD; appropriate intervention objectives

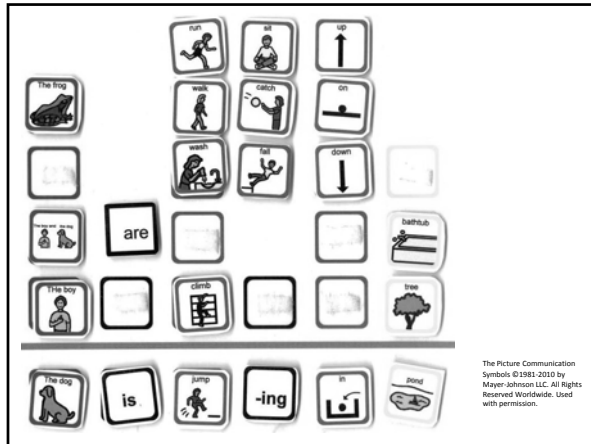
Child will initiate bids for interaction across activities, contexts, and partners using:

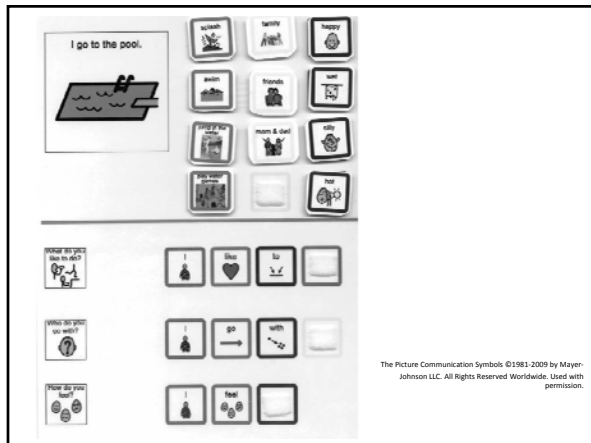
- Creative simple sentences including subjects, verbs, modifiers (e.g., color, preposition, descriptors), and noun phrases.
- Sentences with increasingly sophisticated grammar (e.g., past, present, future tense, articles, pronouns).
- Sentences with increasingly sophisticated syntax (e.g., subordinate clauses) to clarify information for the listener.
- Syntax to show relationships between sentences in conversational and written discourse (e.g., conjunctions)

Conversational language in ASD *Appropriate learning supports*

- *Written symbols and/or graphics can be displayed using color coded word banks and sentence assembly supports to remind the child with ASD which words to select when creating sentences during literacy activities and past events.*
- *Objective: initiating communication using creative sentence structures.*

Development of Symbolic Language in Children with ASD





Conversational language in ASD *Appropriate learning supports*

- *As children with ASD have difficulty predicting the actions of others, ensuring that written language tasks have a specified endpoint or purpose to achieve functional communication with others is essential.*
- *Objective: initiating communication using creative sentence structures.*

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Conversational language in ASD *Appropriate learning supports*

Examples:

- *Spelling basic words*
- *Handwriting practice*
- *Personal narrative*

Conversational language in ASD *Appropriate learning supports*

Additional learning supports include:

- *Ensuring that tasks are meaningful and purposeful.*
- *Defining a clear beginning and end point for tasks.*
- *Providing support for emotional expression and coping.*

Additional information

Website: <http://www.CommXRoads.com>.
Email: Emily@CommXRoads.com

Additional website resources include:

www.scerts.com
www.autismneighborhood.org

ASHA Guidelines for ASD:
<http://www.asha.org/docs/html/GL2006-00049.html>

Development of Symbolic Language in Children with ASD

Conference Schedule

Monday: 12:00pm EST Temple Grandin, Ph.D.; Linda Schreiber, M.S., CCC-SLP; Kristine Retherford, Ph.D., CCC-SLP

Tuesday: 12:00pm EST Carol Westby, Ph.D., CCC-SLP
3:00pm EST Michelle Garcia Winner, M.A., CCC-SLP

Wednesday: 12:00pm EST Sylvia Diehl, Ph.D., CCC-SLP
3:00pm EST Rhea Paul, Ph.D., CCC-SLP

Thursday: 12:00pm EST Emily Rubin, M.S., CCC-SLP
3:00pm EST Elisabeth Wiig, Ph.D., CCC-SLP

Friday: 12:00pm EST Round Table with Sylvia Diehl, Emily Rubin, Carol Westby, and Elisabeth Wiig

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