

The Role of Supported Experience in the Social Communication of Teens with Autism Spectrum Disorders (ASD) and Their Typical Peers: A Qualitative Study in Urban California

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Introduction

- California has seen a marked increase of autism spectrum disorders (ASD) over the past 15 years.(Hertz-Picciotto & Delwiche, 2009).
- Individuals with ASD are often unable to form meaningful friendships, leaving few opportunities to experience peer interactions, develop social and communicative competence, and participate in the culture of their peer groups.
- The impoverished social lives of individuals with ASD become especially pronounced in the adolescent years, when accepted forms of interaction become more complex and rigid.

Theoretical Background

- Integrated Playgroups Model (Wolfberg, 2009; 1999/2009; Wolfberg & Schuler, 1993)
- Ethnography of Autism Project (Ochs, 2002; Ochs, Kremer- Sadlik, Sirota, & Solomon, 2004)
 - Interpersonal level of engagement
 - Socio-cultural level of engagement
- Embodied models of social interaction
 - Enactive Mind Theory (Klin, Jones, Schultz, & Volkmar, 2003)
 - Interaction Theory (Gallagher, 2004)
 - Dynamic Systems Theory (Thelen & Smith, 1994; Smith, 2005))

Guiding Questions

- What qualities does social communication have during group sessions, and how do these qualities change over time?
- What socialization processes are at play during Integrated Social Group meetings?

Principles of Teen Social Groups

- Social **experience** is how we learn to be social
- Integration with typically developing teens gives teens with ASD access to their peer culture
- Typical teens scaffold social interaction
- Authentic social experience arises organically from the participants (not adults)
- Social group participants co-construct group norms and expectations (not adults)

Teen Social Group Goals

1. Give teens with ASD a sense of autonomy in constructing and maintaining their own social lives by engaging with peers in activities chosen by the group
2. Foster motivation for teens with ASD and typical teens to engage in socialization together
3. Provide entryway for teens with ASD into a peer culture
4. Educate typical teens about ASD through direct experience
5. Enhance the potential of teens with ASD to engage in positive social experiences

Organizing a Group

- Community center setting in this study; other settings could be a school, after school program, etc.
- Group size should reflect comfort level of participants with ASD. Ratio should be 1:1 or higher
- Have a group discussion about respecting differences (Wolfberg, McCracken, & Tuchel, 2009)
- Make sure that typical teens understand that they are not aides or teachers

Group Meeting Structure

- Personal updates
 - Round-robin or free discussion
- Previously Chosen activity
- Clean-up
- Discuss and choose the next activity
 - Validate all ideas; facilitator can suggest adjustments so that activities are age appropriate and can involve everyone
 - Cooperation is key

The Role of the Facilitator

- Emphasize common points of interest
 - De-emphasize surface differences
 - Interpret the common meanings underlying idiosyncrasies
 - Adjust chosen activities to reflect individual differences and interests
- Scaffold interaction through indirect means
 - Decrease and increase support as needed
 - Learn the art of backing off
 - Insert suggestions, not directives
 - Direct attention to missed social cues

The Role of the Facilitator cont.

- Elicit buy-in from all group members
 - Encourage group members to just be the themselves
 - Frame group meetings as legitimate social experiences, not volunteer opportunities for typical peers
- “Pave the way” for participants with ASD into complex conversations and interaction
 - Teens have plenty to talk about; look for inroads
 - Social groups should be a safe, open environment to talk about whatever is on participant’s minds

Participants

- Celia: 16 year old Caucasian female diagnosed with PDD-NOS. Highly verbal, loves movies. Showed delayed processing and was sometimes over-assertive in pressing her own ideas for group activities
- Anna: 13 year old Latina female diagnosed with autism. Loved interactive activities like games, making food, and dancing. Verbal, but with idiosyncratic grammar.

Participants Cont.

- Kara: 16 year old Filipina female, typically developing
- Diane: 16 year old Chinese female, typically developing
- Others: Heidi, Jane (typically developing 13 year olds, occasional participants)

Methods

Data Collection

- Participant observation: Eight 90 minute sessions were videotaped and transcribed
- Interviews: One with each participant with ASD
- Document analysis: Intake and data collection documents from community center

Analysis

- Codes included: language functions defined by Ochs (2002; see table 1), general context, interaction descriptors, and behavior
- Sub-codes were developed inductively and deductively
- Documents and interviews helped create a case history for each participant

Table 1: Definitions of Language Functions

Function	Stance		Indexical Forms		Repairs	
	Affective Stance	Epistemic Stance	Activity	Socio-Cultural Index	Repetition with Little or No Variation	Repetition with Variation
Definition	Moods, attitudes, feeling, or disposition as well as emotional intensity	A person's knowledge or belief, including sources of knowledge and degrees of commitment to truth	Refers to larger social activity, indexed by language referring to smaller units of action	Language that refers to a wider socio-cultural meaning shared by a social group	An attempt to clarify a previous statement by repeating a similar statement	An attempt to clarify a previous statement by describing it in another way
Example	"This movie is really creepy."	"I'm not sure how to do this."	"First you dip the fabric in the glue." Indexes the activity of making cheese-cloth ghosts.	"Who is the guy from Hogwart's?" Indexes the movie <i>Harry Potter</i> .	"It's Santa. He's Santa."	"I want my nails to be silver. I'm going to use the nail polish to make my nails a different color."

Ochs, 2002; Ochs, Kremer-Sadlik, Sirota, & Solomon, 2004

Findings

- Interaction profiles varied across participants and across contexts
- 'Bottom-up' social processes: Participants co-constructed new norms not based on larger socio-cultural norms
- 'Top-down' social processes: Behavior of typical peers appeared to reflect larger socio-cultural perceptions

Celia's Interaction Profile

- Interaction transcended immediate social group activities
- In some instances, Celia could coordinate several topics, stances, socio-cultural indexes, and strands of knowledge simultaneously
- At other times, Celia had difficulty matching specific questions with an appropriate answer and reading social cues of other group members
- Validation of both the activity at hand and Celia's status as a member appeared important to Celia's social competence

Anna's Interaction Profile

- Interactions centered on group context
 - Topics of shared knowledge between group members: activities done together, consistently discussed interests
 - More likely to index activity than larger socio-cultural events
- With support, Anna acted as both expert and novice
- Open ended discussions not tied to group context were most difficult
 - Difficulties producing and understanding narratives
 - Suggests shared meanings developed through direct experience are important

Bottom-up Social Processes: Conventionalization of idiosyncratic utterances

- Utterances that was once seen as idiosyncratic and isolating became a means for interaction as girls became familiar with one another
- Facilitator support in validating and interpreting communication attempts appeared important to constructing meaning around utterance
- Indirectly addressing the utterance and relating it to the group was most successful at eliciting a genuine interaction– did not interrupt 'flow' of interaction.

Table 2: Conventionalization of Idiosyncratic Utterances

Repeated Idiosyncratic Utterance	Facilitator Moves	Target Teen Response	Resulting Peer Interaction
"Excuse me. Scuse me, you don't snatch it away from people like that, it's not nice."	None	Not Applicable	None
"Edmond! You did it!"	None—not in the room	Not Applicable	None
"You better back up! Giggles after repeating phrase	Direct question about behavior: "Tell us what's funny Anna, so we can laugh about it too"	Response to Facilitator: "Sometimes I think about funny things in school"	Dawn responds with: "Sometimes that happens to me too, where I laugh and people say 'why are you laughing?'"
	Directs Celia to ask Anna what she is saying	Response to Celia: "No. Sometimes I create many colors" (not related to topic.)	Celia does not follow up question any further
"Can you give me a ride across the river?"	Directly addressed behavior: "Did you go across a river?"	Unclear response: "No, just like Pajama Sam what I'm talking about."	None
	Relates the phrase to Dawn's narrative about being on the Dragon Boat Team	Anna provides full explanation of why she has been repeating the phrase	Triadic interaction around utterance topic

Top Down Social Processes: Behavior Towards Teens with Disabilities

- Instances where typical teens excluded teens with ASD, despite apparent social competence of teen with ASD
 - Usually involved "taboo" subjects
 - Other instances occurred when a repair was not solicited from a teen with ASD, even when significant knowledge was displayed
- These episodes appeared to play into ASD symptoms, such as apparent 'executive function deficits' (see below for example).

Social Group Transcript: Watching a movie

Kara: That looks like the guy from... Wait! Didn't the guy from Hogwarts, what's his name, Dumbledore--
 Celia: Hagrid. Hagrid.
 Kara: Is he still alive?
 Facilitator: He died?
 Kara: He's still alive, right?
 Celia: He died and they got a new guy.
 Kara: I thought it was because, you know how in some movies people die and there's like a conspiracy.
 Dawn: Like the Batman one, have you guys heard about Batman, the Joker, how he died--
 Facilitator: Heath Ledger--
 Dawn: Yeah, because he was really into his character--
 Kara: Oh, no he--
 Celia: He got really crazy.
 Kara: It was a drug overdose.
 Kara: Yeah, it was a drug overdose. Like he was taking these medicines, and he didn't know not to mix them.

Following this segment, Kara and Dawn begin to whisper between the two of them, excluding Celia. Celia quickly picks up on this social cue, and directs her attention to the facilitator:

Celia: He's supposed to be Santa.
 Facilitator: He looks like Santa.
 Celia: He's supposed to be Father Christmas. They call him Father Christmas.
 Facilitator: Yeah.
 Celia: In Narnia they call him Father Christmas.
 Facilitator: Not Santa Clause.
 Celia: Mm-hmmm.

In the in initial segment, Celia coordinates multiple stances, lines of knowledge, and events. What has changed? Is the subsequent repetition with little variation an executive functioning deficit, or at least partly the result of larger socialization processes (exclusion)?

Discussion

- Teens with ASD can gain an experiential understanding of how to attune with others and understand the context that informs social interaction, which is a more fluid marker of social success than previously used markers, i.e. passing the 'false-belief' task (Klin, Jones, Schultz, & Volkmar, 2003).
- The variability in communicative competence as context changes suggests that an ability to interact with others might not rest in a static representational knowledge of other minds, but is instead dependent upon dynamic mechanisms informed by shared experience, and the effects of larger social structures and group norms (Gallagher, 2004; Ochs, Kremer-Sadlik, Sirota, & Solomon, 2004; Thelen & Smith, 1994).
- Social membership is an important part of social communication development, and integrated teen groups appear to supply this context in beneficial ways. Having the status as a member allows for participation in constructing new group norms.
- Framing linguistic differences as a form of natural diversity might help typical peers include teens with ASD (Wolfberg, McCracken, & Tichel, 2009).

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