This study presents a qualitative description of changes in social and symbolic behaviors in an African-American girl with autism over a period of 10 years (from age 5 to 15 years), with emphasis on ages 9 to 11. The primary purpose of the investigation was to elucidate the process ultimately leading to reciprocal social relations and symbolic representation, and to understand the context that supported this change. Dramatic changes were observed during the time she participated in a peer play intervention, including advances from isolated to socially coordinated play with peers; presymbolic to imaginative play activity; and parallel symbolic transformations in spoken language, written language, and drawing. The study concluded that reciprocity, communicative interaction, and symbolic imagery in play and related representational activity emerged when the child was provided with sufficient social support. The case study suggests that autistic children's awareness of other people's mental states and intentions may be enhanced through guided play experiences, and deficits in symbolic operations commonly ascribed to autism may be better explained as secondary to social isolation rather than as basic cognitive deficiencies. (Contains 11 references.) (JDD)
A Case Illustration of the Impact of Peer Play on Symbolic Activity in Autism

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Abstract

Qualitative impairments in reciprocal social interaction and imaginative play are hallmarks of the syndrome autism. This study presents an in-depth qualitative description of changes in social and symbolic behaviors in an African-American girl with autism over a period of ten years (from 5 to 15 years). Dramatic changes were observed during the time she participated in a peer play intervention. Findings include advances from isolated to socially coordinated play with peers, pre-symbolic to imaginative play activity, and parallel symbolic transformations in spoken and written language, and drawing. Findings are discussed in terms of theories of autism and intervention issues.
Introduction

Qualitative impairments in reciprocal social interaction, imaginative activity, and a markedly restricted repertoire of activities and interests are viewed as hallmarks of the syndrome early childhood autism (American Psychiatric Association: DSMIII-R, 1987; Wing & Attwood, 1987), and are all reflected in the commonly noted lack of spontaneous play. The play of children with autism is typified as sterile, ritualistic and void of social engagement (Lord, 1984; Wing, Gould, Yeates & Brierly, 1977). Paucity of imaginative play is consistent with recent research findings dealing with metarepresentational skills in children with autism (Baron-Cohen, Leslie, & Frith, 1985; Baron-Cohen, 1989). An appreciation of the mental states of others is critical to pretend play, but it is not clear whether the documented deficiencies are the result of social isolation or constitute a fundamental deficit. It would be important to clarify (1) whether social interaction and imaginative thought could emerge when sufficient social support is provided, and (2) the interrelations between social interaction and advances in representational activity across various symbolic domains.

This paper presents a case illustration of the impact of a peer play intervention on social relations and symbolic activity in an African-American girl with autism given the pseudonym, Teresa. The primary purpose of this investigation was to elucidate the process ultimately leading to reciprocal social relations and symbolic representation, and to understand the context that supported this change. This study followed the evolution of Teresa’s development over a ten year time span, from 5 to 15 years of age, with emphasis placed on a two year period during which she participated in a integrated play groups from 9 to 11 years of age (Wolfberg & Schuler, in press) (see Table 1 for a description of the integrated play groups model). The first six months of this period marked the emergence of advanced social behaviors and symbolic representational abilities.
Research Design and Methodology

Case Illustration

An ethnographic interpretive case study examined longitudinal concomitant changes in social and symbolic forms of play, language, writing, and drawing in Teresa (LeCompte & Goetz, 1984; Merriam, 1988; Runyan, 1982; Yin, 1989). The principal investigator collected most of the data as a participant observer in the field.

Case Participant. Psychological reports indicate that Teresa had been independently evaluated and diagnosed as conforming to Rutter's (1978) diagnostic criteria for autism: onset in early childhood, impaired social development, disturbance of language and cognitive skills, and an insistence on sameness.

Peer Play Context. Videotapes of bi-weekly integrated play groups sessions documented the following three conditions: (1) "no adult guidance" whereby no adult intervention was provided for a two month period (2) "guided participation" whereby an adult provided support for a two month period (3) "peer mediated" whereby adult guidance was withdrawn for a two month period.

Data Collection and Analysis

Employing inductive procedures (Glaser & Strauss, 1967; Miles & Huberman, 1984), data collection and analysis progressed intermittently. Descriptive, interpretive, and evaluative techniques were used to explore interrelationships and construct theory emerging from the data. Triangulation involving the cross-validation of multiple theoretical schemes, methodologies, data sources, and investigators insured rigor and credibility of the study (Denzin, 1978).

Data Sources. (1) videotapes of integrated play group sessions (2) videotapes of school related activities (3) writing samples (4) drawing samples (5) interview transcripts with Teresa, teachers, family members and peers, and (6) process notes detailing school progress (7) school documents.

Data Reduction Activities. Analysis involved transcribing and coding videotaped play sessions, and ordering, classifying and comparing the recorded data within and across other data sources. Guided by theories, further data reduction and analysis took place as themes emerged from patterns and relationships gleaned from the data.
Summary of Case Study Findings

Within the parameters of Teresa's (1) social relations with others, (2) transformations in play, and (3) transformations in words and pictures, the case study analysis documented (a) progressions in social development from isolation to peripheral and fleeting encounters, to coordinated and sustained social interactions with peers, (b) symbolic transformations from repetitive and simple object manipulations, to elaborate, flexible, novel, and imaginative play schemes, and (c) parallel symbolic transformations in spoken and written language, and drawing (see Table 2). Supported by samples of Teresa's play, language, writing and drawing, the following illustration summarizes the progression of these associated changes.

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Insert Figures
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Discussion

The accumulated findings have implications not only for purposes of intervention but also for our theoretical understanding of the syndrome autism. When Teresa was provided with sufficient social support, reciprocity, communicative interaction, and ultimately, symbolic imagery in play and related representational activity emerged. The case study suggests that autistic children's awareness of other people's mental states and intentions may be enhanced through guided play experiences. Deficits in symbolic operations commonly ascribed to the syndrome may be better explained as secondary to social isolation rather than as constituting basic cognitive deficiencies. The contributions of supported peer play experiences to advances in perspective taking and metarepresentation deserve closer attention.

Further investigations would be necessary to determine whether larger scale replications of integrated peer play programs, as presented here, would result in similar gains in symbolic activity and overall sociability including the ability to appreciate the perspectives of others. More extensive research would be needed to questions concerning the interdependence of social support, peer relations, and the various domains of symbolic development. Clarification of these interrelationships is important for determining which approaches are most beneficial to the social integration of children with autism. Moreover, future research would be necessary for elucidating to what extent guided play experiences contribute to the establishment and maintenance of long term peer relationships, including friendships. Play experiences with peers may prove to be a most important vehicle for normalization.
References


Integrated Play Groups: A model to enhance the social and symbolic dimensions of play

DEVELOPING A SOCIAL SUPPORT SYSTEM FOR PEER PLAY

Focus on child competence

Child initiations in play are considered a reflection of developmental status rather than a sign of perceived deviance. Acknowledgement of child competence is achieved through a careful appraisal of developmental status as reflected in patterns of object and social play. Guided by assessments, the intervention capitalizes on children’s spontaneous initiations through deliberate imitation and scaffolding, allowing children to select desired activities, and selecting activities that correspond to developmental levels and prevailing object schemes.

Guided Participation

The concept of guided participation refers to the adult’s role in guiding the children to participate in increasingly socially coordinated and sophisticated play activities in a supportive rather than directive manner. The amount of external support is regulated in a scaffolded fashion; as the children demonstrate increasing competence, the adult gradually removes himself/herself and remains on the periphery as a “secure base,” readily available to provide support when needed. To facilitate play activities, the adult guides the children to initiate, join, maintain, elaborate and negotiate play routines. Strategies are presented which enable the children to establish a mutual focus by recognizing and responding to subtle cues and spontaneous initiations. Depending upon the interests, developmental status, and experience of play group members, children may move in and out of joint activities with one or more peers. Solitary play activities may also be encouraged from time to time as they are often a natural extension of peer play, and allow children to practice, consolidate, and appropriate newly acquired skills.

Full immersion in play

Children are fully immersed in the total group play experience. Rather than arranging for participation in contrived play scripts or discrete “play” tasks, children engage in the whole play experience, even if active participation is minimal. A system of mutual support and collaboration is developed as children just learning to play (novices) take on whatever role they are capable of performing in a larger play context designed by children experienced in play (experts). Children may participate in activities and carry out tasks which they may not as yet fully comprehend. For example, a child who has a particular inclination to manipulate objects through ritualistic banging may incorporate this into a larger play theme of constructing a building with blocks. With the assistance of more capable peers, the child may take the role of a construction worker and hammer the blocks with a play tool. Gradually, the novice is initiated into the culture of children’s play as she/he becomes a competent player.

DESIGNING SUPPORTIVE PLAY ENVIRONMENTS

Natural and integrated settings

A natural setting is defined as a location where, given the opportunity, children would naturally play. An integrated setting is defined as a social setting composed of children with diverse abilities, with a higher proportion of children who are socially competent to children who require a high degree of social support. Play programs may be developed in inclusive and integrated school sites, after-school programs, community centers, neighborhood, and home environments.

Well designed play spaces

To enhance participation in play and social interaction, a well designed play space takes into consideration spatial density and size, spatial arrangements, and organization of materials. Play spaces are typically restricted in size while comfortably accommodating small groups of children, clearly defined by boundaries, highly organized with play materials and furniture visibly and physically accessible and logically arranged around themes.

Selection of play materials

To encourage mutually enjoyable among children with diverse interests and abilities, a wide range of constructive and socio-dramatic toys and props are made available. Age-appropriate play materials are selected on the basis of their interactive potential for social play, structure and complexity. Age-appropriateness refers to what the average child of a particular age would enjoy playing with and does not refer to what is commercially sanctioned or typically available in school. Toys representing diversity in terms of gender-roles, cultural values, and abilities are purposely included.

Forming balanced play groups

To enhance play and social relationships with other children, play groups are limited in the number of familiar peers and siblings who meet on a regular and consistent basis over an extended period of time. Play groups generally include at least three and not more than five children. Play group members have diverse abilities, with a higher proportion of children who are socially competent to children who require a higher degree of social support. Different configurations of group members in terms of age, developmental status, and gender may promote different types of beneficial play experiences. Attempts should be made to include children who complement one another in terms of interests, styles of interaction, and character.

Establishing a consistent schedule and routine

High degrees of consistency and predictability are achieved through establishing a consistent schedule and carrying out ongoing routines. Visual schedules or calendars may be personalized for each play group member. Opening and closing rituals such as brief plan, review and a simple song at the start and finish of each play session are established. These allow children to exert a sense of control over the environment, anticipate future events and better cope with transitions.

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Table 2. Summary of case study findings

<table>
<thead>
<tr>
<th>Relations to the Social World</th>
<th>Transformations in Play</th>
<th>(5 - 8 YEARS)</th>
<th>(8 - 9 YEARS)</th>
<th>(9 - 11 YEARS)</th>
<th>(11 - 15 YEARS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALONE IN AN UNPREDICTABLE WORLD</td>
<td>BEGINNINGS OF EXPLORATION AND DISCOVERY</td>
<td>VENTURING INTO THE WORLD OF CHILDREN'S PLAY</td>
<td>BEYOND PLAY GROUPS</td>
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</tr>
<tr>
<td><strong>CLINGING TO ADULTS FOR SECURITY</strong></td>
<td><strong>WATCHING OTHER CHILDREN</strong></td>
<td><strong>STRUGGLING TO BECOME INCLUDED</strong></td>
<td><strong>INITIATION INTO PLAY CULTURE</strong></td>
<td><strong>ACCEPTANCE AND INCLUSION</strong></td>
<td><strong>FRIENDSHIPS AND FAMILY</strong></td>
</tr>
<tr>
<td>- Attachment to familiar adults</td>
<td>- Watches peers while remaining close to adults</td>
<td>- Frequent attempts to initiate and join peer play expressed through idiosyncratic means</td>
<td>- Peers increasingly respond to Teresa's spontaneous, idiosyncratic initiations</td>
<td>- Spontaneous initiations more conventional</td>
<td>- Circle of friends with girls from mainstreamed classes in school</td>
</tr>
<tr>
<td>- Imitative of adult behavior</td>
<td>- Begins to wander on play ground</td>
<td>- Awkward &amp; abrupt play entry strategies</td>
<td>- Peers increasingly extend invitations to Teresa to play</td>
<td>- Less awkward and more skillful play entry strategies</td>
<td>- Close relations with family members</td>
</tr>
<tr>
<td>- Clings to adult on play ground</td>
<td>- Approaches peers in idiosyncratic fashion</td>
<td>- Lacks understanding of social nuances &amp; social perspectives of peers</td>
<td>- Teresa demonstrates increased competence in initiating, joining &amp; coordinating play activities with peers</td>
<td>- Continued difficulty understanding social nuances and social perspectives of peers</td>
<td>- Spends a great deal of time playing with cousins</td>
</tr>
<tr>
<td>- Shy/fearful around peers</td>
<td>- Limited spontaneous interaction with peers</td>
<td>- Initiations generally ignored &amp; occasionally rejected by peers</td>
<td>- Increased ability to extend and elaborate socially coordinated play activities</td>
<td>- Increased ability to extend and elaborate socially coordinated play activities</td>
<td>- Helps mother care for baby brother</td>
</tr>
<tr>
<td>- Avoids peer contact</td>
<td>- Interacts briefly with peers when prompted</td>
<td>- Spends extended periods of time in isolation</td>
<td>- Occasional brief unelaborated play episodes with peers</td>
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</tbody>
</table>

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<tr>
<td><strong>CREATING ORDER THROUGH RITUALS</strong></td>
<td><strong>RITUALIZING FAMILIAR ROUTINES</strong></td>
<td><strong>FINDING COMFORT IN RULES AND RITUALS</strong></td>
<td><strong>PRETENDING</strong></td>
<td><strong>FANTASY IN PLAY</strong></td>
<td></td>
</tr>
<tr>
<td>- Limited repertoire spontaneous play activities</td>
<td>- Engages in few different play sequences</td>
<td>- Little spontaneous solitary play</td>
<td>- Socio-dramatic play</td>
<td>- Covert expressions of make-believe in play</td>
<td></td>
</tr>
<tr>
<td>- Fixations on particular objects and routines</td>
<td>- Forms attachment to particular doll</td>
<td>- At less wandering while watching peers</td>
<td>- Adopts baby doll</td>
<td>- Play scripts reflect logical &amp; coherent themes</td>
<td></td>
</tr>
<tr>
<td>- Repetitive manipulative and functional play schemes</td>
<td>- Extends familiar routines to self &amp; doll in ritualistic fashion</td>
<td>- Devises rituals by repeating rules and familiar routines</td>
<td>- Transforms self into role of dolls</td>
<td>- Plays scripts incorporate imaginary events</td>
<td></td>
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<tr>
<td>- Doll play limited to repeated hair combing scheme</td>
<td>- Uses realistic replicas to represent objects</td>
<td>- Engages in repetitive themes with play materials</td>
<td>- Uses imaginary props</td>
<td>- 'Echo-play-lia' transforms into spontaneous &amp; flexible pretend</td>
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</tbody>
</table>

**TABLE CONTINUES ON REVERSE SIDE OF PAGE...**
<table>
<thead>
<tr>
<th>Transformations in Words and Pictures</th>
<th>(5-8 YEARS) ALONE IN AN UNPREDICTABLE WORLD</th>
<th>(8-9 YEARS) BEGINNINGS OF EXPLORATION AND DISCOVERY</th>
<th>(9-11 YEARS) VENTURING INTO THE WORLD OF CHILDREN'S PLAY</th>
<th>(11-15 YEARS) BEYOND PLAY GROUPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMPITATING SOUNDS AND SIGNS</td>
<td>DISCOVERING MEANING IN WORDS AND PICTURES</td>
<td>SYMBOLS IN WORDS AND PICTURES</td>
<td>FANTASY IN WORDS AND PICTURES</td>
<td></td>
</tr>
<tr>
<td>Immediate and delayed echolalic speech</td>
<td>Immediate and delayed self-directed echolalia to guide actions</td>
<td>• Language &amp; gestures to represent objects, people, &amp; events</td>
<td>• Covert expressions of make-believe in writing &amp; drawing</td>
<td></td>
</tr>
<tr>
<td>Single word nouns and uninterpretable sounds</td>
<td>Emergence of literacy through whole language immersion</td>
<td>• Self-directed language to plan, order, &amp; carry out play scripts</td>
<td>• Spoken language exclusively socially directed</td>
<td></td>
</tr>
<tr>
<td>Combines speech and sounds with actions</td>
<td>Drawing progresses from primitive to naturalistic representations of human figures and familiar objects</td>
<td>• Incorporates writing in pretend play activities</td>
<td>• Writes stories &amp; draws pictures with logical &amp; coherent themes</td>
<td></td>
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<tr>
<td>Identifies and copies letters of the alphabet</td>
<td></td>
<td>• Narrative structure in writing similar to play scripts</td>
<td>• Incorporates fantasy characters in stories</td>
<td></td>
</tr>
<tr>
<td>Writes name</td>
<td></td>
<td>• Writing more story-like with peer assistance</td>
<td>• Rich &amp; elaborate detail in drawings</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Portrays self, others, &amp; objects realistically in drawings</td>
<td>• Expresses empathy by participating in the feelings &amp; emotions of characters in complex stories</td>
<td></td>
</tr>
</tbody>
</table>