Relationship Development Intervention

Developing a Treatment Program to Address the Unique Social and Emotional Deficits in Autism Spectrum Disorders

Steven E. Gutstein, Ph.D.

Introduction and Overview

MPAIRED SOCIAL AND EMOTIONAL FUNCTIONING presents the greatest obstacle to quality of life for people with autism spectrum disorders (ASDs) (Howlin & Goode, 2000; Mundy & Crowson, 1997). The devastating impact that these impairments have throughout the lifespan has been well documented (Barnard, Harvey, Potter, & Prior, 2001; Seltzer & Krauss, 2002). Even when individuals with ASD do develop some social and emotional skills such as eye contact, emotion recognition, and turn-taking, these skills appear to be contained within a limited domain, characterized by encounters that are managed using scripted, predictable actions bereft of the emotional components of communication. Moreover, these encounters are driven primarily by the desire to use social and communicative behavior for instrumental purposes; that is, as a means to obtain specific goals (Hobson, 1993; Mundy, 1995; Robertson, Tanguay, L'Ecuyer, Sims, & Waltrip, 1999).

In contrast, deficits specific to ASD lie in the domain of experience-sharing during emotion-based encounters, where sharing and integrating experiences with others become the primary goal (Hobson, 1993; Mundy, 1995; Sigman & Ruskin, 1999; Trevarthen, 2001). Examples of experience-sharing contexts and activities include reciprocal conversations; expressing curiosity about others' thoughts and feelings; sharing memories; and, maintaining friendships. Experience-sharing competence is measured by the extent to which individuals are able to coordinate and integrate elements of their subjective experience with that of others (Carpenter, Nagell & Tomasello, 1998; Eckerman, Davis, & Didow, 1989; Hobson, 1993). Coordination occurs through matching, complementing, comparing, contrasting and/or integrating personal elements with those of others. Elements may range from simple emotional reactions to synchronized actions, shared goals, unique perspectives, important memories, future plans, and inner feelings (Fogel, 1993; Tomasello & Farrar, 1986).

While many characteristics of ASD seem to improve with time and/or instruction, experience-sharing deficits appear to be highly stable throughout the lifespan (Sigman & Ruskin, 1999; Tantam, 1991), as well as resistant to treatment (Hadwin, Baron-Cohen, Howlin, & Hill 1997; Hwang & Hughes 2000; Marriage, Gordon & Brand, 1995; Ozonoff & Miller, 1995).

Relationship Development Intervention

The following section briefly summarizes several of the critical features of Relationship Development Intervention (RDI), a comprehensive program specifically designed to remediate experience-sharing deficits. RDI is based on a cognitive and developmental systems approach that emphasizes teaching children to appraise and adapt their actions

to others as they participate in ongoing interactive processes, rather than on providing instruction in discrete skills. Prior to beginning RDI, parents participate in the Relationship Development Assessment (RDA). This instrument is designed to carefully evaluate the child's current experience-sharing competencies and limitations. The RDA is also used to develop appropriate treatment objectives and to identify potential child and parent obstacles. While the following section provides a brief overview of RDI principles and methods, other publications (Gutstein, 2001; Gutstein & Sheely, 2002a, 2002b) present a more complete account.

Developing an Emotional Feedback System

Experience-sharing competence develops in a gradual, systematic fashion in neurotypical children. Mastery of rudimentary abilities is the springboard for the introduction of new challenges (Rogoff, 1990; Sroufe, 1996). Parents

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carefully regulate this sequence, and the degree to which they "raise the bar" is based upon their infants' responses. Hence, the parent-infant emotional feedback system is established in the first few months of life (Fogel, 1993; Sroufe, 1996; Tronick, 1989).

In contrast, children with ASD rarely provide the type of clear emotional feedback that caregivers require to finely tune their actions. Nor, do these children accurately interpret their parents' emotional expressions (Capps, Kasari, Yirmiya, & Sigman 1993; Dawson, Hill, Spencer, Galpert, & Watson, 1990; McGee, Feldman & Chernin, 1991). Inability to establish a reliable emotional feedback system deprives parents of the ongoing information needed to effectively balance success and safety while introducing new challenges. It also deprives their

children of valuable experience-sharing information.

RDI addresses this problem by teaching parents to employ simple activities and exercises designed to establish this feedback system by promoting emotional attunement between themselves and their children (Stern, 1977). Work on more complex experience-sharing does not progress until the child is regularly engaging in both unprompted facial gazing for emotion-sharing, and consistently responding to parental joint attention behaviors.

Apprenticeship in Co-Regulation

Parents of typically developing children act as senior co-participants in interactions with their children. They carefully increase demands for their children to take greater responsibility for coordinating and regulating the actions needed to maintain the coherence and mutual enjoyment of increasingly

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sophisticated interpersonal encounters (Fogel, 1993; Rogoff, 1990; Sroufe, 1996). Individuals with ASD fail to master even the early foundations of co-regulation. Nor do they learn to make the frequent self-regulatory adjustments necessary to function as equal partners in dynamic social encounters (Bacon, Fein, Morris, Waterhouse, & Allen, 1998; Geller, 1998).

RDI parents learn to carefully pace their "demands" for co-regulation, so that their children develop a sense of self-efficacy and a desire to take their share of responsibility in reciprocal interactions. They do this by employing ongoing social referencing and behavior regulation techniques. These serve as ongoing "background" functions during social encounters. Success here can increase the child's motivation to become a competent co-participant in these encounters.

Participating in Dynamic Systems

Social relationships inherently involve the introduction of new challenges and information that does not fit the child's existing ways of organizing knowledge. Thus, reciprocal social encounters inevitably create some degree of disruption of the child's current cognitive state. Typically developing infants and toddlers benefit from these periods of "productive uncertainty," using them to develop more sophisticated ways of organizing their experiences. Additionally, they spend countless hours developing proficiency in rapidly adapting to change by engaging with parents in the elaboration of simple games, such as peek-a-boo and pat-a-cake.

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Children with ASD have neither the desire nor the ability to participate in any types of encounters that are characterized by ongoing change and novelty. They seek either to avoid such encounters, or to transform them into static interactions, by attempting to control or codify all participants' actions so that they become predictable and repetitive.

RDI parents learn to guide the child by co-participating in simple, regulated activities. Parents continually add challenge in small manageable amounts, to afford the child the opportunity to

assimilate the added complexity and/or incongruity. For example, sweeping the floor might begin with simple parallel actions of both partners using brooms and matching actions to sweep. Later, parents might introduce "complementary" roles by having one partner act as the "sweeper" while the other performs the "dustpan" role in a coordinated fashion.

Developing Declarative Communication

Participants in dynamic encounters communicate through *declarative* means. Declarative communication involves the intent to share and invite others to share some aspect of one's experience. It is distinguished from *imperative* forms of communication which are instrumental in nature (i.e., directed toward the satisfaction of one's own needs) (Bates, Camioni & Volterra, 1975; Carpenter, Nagell & Tomasello, 1998). For example, a request "demands" a particular response, and thus constitutes a form of imperative communication. Children with autism—even those who are verbally proficient—appear to make almost exclusive use of imperative communication (Landa, 2000; Stone, Ousley, Yoder, Hogan, & Hepburn, 1997).

RDI parents are taught to emphasize and maintain a primarily declarative communication style. They learn to slow down communication to allow the child time to process information and to consider his or her reply. They limit and modify communication elements that add unnecessary complexity, or that might distract the child from an experience-sharing focus. As such, parents are taught to avoid over-talking, frequent questioning and prompting.

Constructing Optimal Learning Environments

Typical children are able to master the foundations of experience-sharing during the infancy and toddler years, through their participation in simple shared activities, paced to their developmental needs, with limited competing attentional demands (Sroufe, 1996; Tronick, 1989). Deprived of the natural "advantages" of infancy and toddlerhood (i.e., participation in shared activities), children with autism are highly vulnerable to the attraction of objects and activities that "compete for attention" with social partners (Joseph & Tager-Flusberg, 1997).

RDI parents learn to simplify physical environments, slow down the pace of daily activities, and provide opportunities throughout the day for their children to hone their newly developed experience-sharing skills. With the help of a certified RDI consultant, parents learn to monitor their child's progress, and to gradually and systematically increase environmental "noise," so as to approximate real-world demands. All of this is carefully "titrated" to accommodate their child's increasing competence.

Encouraging Results from Preliminary Research

In a preliminary attempt to study RDI's effectiveness, we selected the following two measures: 1) improvement on the Autism Diagnostic Observation Schedule (ADOS) (Lord, Rutter, DiLavore, & Risi, 2002), and 2) increased independent functioning in educational settings. Over a sixteen month period, we compared 31 children with ASD between the ages of two and nine—seventeen children whose families had

participated in RDI, and fourteen children of similar diagnoses, ages, cognitive, and language functioning who participated in other treatments. The non-RDI group averaged over 25 hours per week of therapist contact, while the RDI group averaged a little over 5 hours per week. A complete description of research methods and results can be found in a related publication (Gutstein, in press).

After sixteen months, 70% of the RDI children had improved in at least one diagnostic category on the ADOS. In contrast, not a single child in the non-RDI group had improved in any diagnostic category.

RDI and non-RDI children did not initially differ in educational placement. At initial evaluation only one child in each group functioned independently in a regular education classroom. By the second evaluation, however, thirteen RDI children were attending regular education settings without significant support. In contrast not a single child in the non-RDI group had moved from

a special to a regular education setting during the sixteen month interval.

While we believe that it is likely that the dramatic progress made by children participating in the RDI group will hold up as they mature, a great deal of further research is needed to substantiate this. Studies should employ larger samples, different age groups, longer-term follow up, and more extensive measurements of progress. We are, however, certainly encouraged by our preliminary findings. ▨

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Dr. Steven Gutstein is the Director of The Connections Center and the Relationship Development Research Institute, both located in Houston, Texas. He is internationally recognized as the developer of Relationship Development Intervention (RDI). For the last 15 years Dr. Gutstein has worked to develop a research-based intervention program addressing the core deficits shared by all people on the autism spectrum. He and his partner and wife, Dr. Rachelle Sheely, have published three books and a number of articles related to RDI. They travel internationally to conduct workshops and training programs. RDI has grown at an incredible rate since its formal inception in 2001, with more than 2,000 families participating in RDI around the world and over 150 professionals in the U.S., Canada, Mexico, Great Britain and Australia. Dr. Gutstein has been married to Dr. Sheely for 24 years. They have two daughters, Hannah, 23 and Esther 21.

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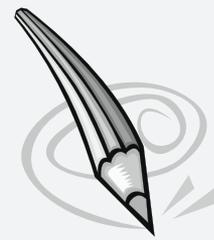
NewsBrief

ASA Celebrates 40th Anniversary and Gears Up for National Autism Awareness Month

This year, the Autism Society of America (ASA) celebrates 40 years of providing education; advocating for legislation; promoting research; and raising awareness about autism.

Almost a decade after its inception in 1972, ASA organized the first national autism awareness campaign, known today as National Autism Awareness Month (NAAM), to be held throughout the entire month of April. During this time, ASA and its chapters join millions of families affected by autism to help raise awareness of the disorder.

Last year's theme, *Rooted in Hope,* centered on a national tree-planting campaign, to signify the unified strength of ASA's grassroots efforts. This year's campaign, *Rev It Up For Autism,* encourages ASA chapters across the nation to take part in fundraising and awareness events focused on activities surrounding movement, such as car races, bike/cycling and run/walk events, or dance competitions.

To learn more about ASA's NAAM efforts or how you can get involved, log onto the ASA Web site, **www.autism-society.org.**