Cognitive Education of Young Children with Autism
An Application of Bright Start

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INTRODUCTION

Autism presents persistent and frustrating problems in socialization and learning. Since the initial description of the syndrome by Kanner (1943), the literature on the effects of treatment and educational programs has been pessimistic with respect to long-term prognosis. Recent authors described the particular learning challenges and specific cognitive processing deficits that characterize children with autism and this more adequate description has led to the promise of more effective remedial procedures (see Schopler, 1987, 1989 regarding Treatment and Education of Autistic and Related Communication-Handicapped Children).

Tactics for changing the behavior of children with autism have been based heavily on an operant conditioning paradigm. Careful control of stimulus presentation and one-to-one teaching methods were first proposed for treatment of children with autism by Ferster (1961). Short-term gains from these teaching methods are often impressive, but they may not provide sufficient opportunity for social and language learning such as
would occur in group instruction (Strain, 1983). Furthermore, they often fail to produce generalized treatment effects (R. Koegel, L. Koegel, & O’Neill, 1989), and they consume too much of a teacher’s time (Myles & Simpson, 1990). Behavioral interventions focused on “pivotal behavior” (Koegel, et. al., 1989) that could restrict generalization of treatment effects may address some of these issues. The larger question is not whether the operant conditioning paradigm has specific problems that can be repaired, but whether it indeed provides the most productive conceptual system from which to design effective treatment. The paradigm is limited in several ways, including the following: (a) the operant conditioning paradigm deals with behavior rather than with the psychological roots of behavior; (b) stimulus control of behavior frequently does not generalize from setting to setting, from person to person, or beyond the contingent-reinforcement situations in which it was established; (c) by not taking into account the cognitive processing deficits frequently seen in children with autism, it does not offer a basis for their remediation. It is this last problem that constitutes the emphasis of the remainder of this chapter.

Wholistic perspectives on child development that acknowledge the integrated fashion in which the cognitive, linguistic, behavioral, and social affective domains develop are helpful for designing treatment programs. While we focus in this chapter on the cognitive processing deficits children with autism frequently display, we use a rather loose definition of cognitive and acknowledge the integrated nature of development. We mean to propose that theories of cognitive development provide a useful perspective from which interventions can be designed to treat cognitive processing deficits. The difficulties that children with autism encounter in thinking, perceiving, and problem solving can be directly addressed by activities designed specifically to develop cognitive processes that are necessary for optimal growth and development. It is useful, then, to examine commonly observed characteristics of children with autism, and then to address the question of the modifiability of deficient cognitive processes that may underlie these characteristics.

CHARACTERISTICS OF CHILDREN WITH AUTISM

Attention/Arousal Deficits

The parents of children with autism often describe them as being uncomfortable with human contact and interaction and nearly impossible to console in contrast to normally developing infants. Infants with autism are notoriously passive, staring into space while their normally developing