Chapter 22
Beyond Diagnosis: Applied Behavior Analysis Treatment of Moderate Autism Spectrum Disorder

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Sam’s case, like many cases of Autism Spectrum Disorders (ASD), can challenge the usual approach to neuropsychological assessment. It illustrates one application of Applied Behavior Analysis (ABA) treatment and the incorporation of an assessment model different from the typical rigorous use of norm-referenced instruments. The criterion-referenced measure does not produce standard scores or age equivalents but, rather, identifies more fine-tuned, skill-specific targets for treatment as well as progress toward treatment goals through regular reevaluation. Such an approach can be a highly practical resource that is directly applicable to treatment, steering intervention by providing information not available from norm-referenced measures of broader ability areas.

Sam was the first child born to a loving family, who watched him respond to noises and speech as an infant and develop cooing, babbling, and jargon prior to age 2. His language development stopped, and he became less verbal and generally appeared less happy at the age of 19 months. He no longer laughed and giggled as he had previously, and he would engage in prolonged periods of staring or rolling toy trains or cars back and forth. He did not respond when called. His parents wondered whether these changes related to the coincident birth of his sister, with whom he would not interact at the time. Speech and language evaluation at age 2 years and 3 months noted extremely limited expressive (9–12 month age-range) and receptive (6–9 month age-range) language. Screening at that time indicated normal hearing. When Sam was aged 2 years and 6 months, speech therapy observations described the following as significant progress: he would leave the couch, allow a therapist to touch him, respond to his name by turning his head when called, and use one to two words. He preferred isolation. Although these observations were intended to communicate progress, they also reflected the severity of Sam’s troubling symptoms. Although the difficulties were considered communication-related at the time, the implication that he had not been responding when called by name was a meaningful clue of his impending broader ASD diagnosis. An Early Childhood educational evaluation conducted in Sam’s home when he was aged...
2 years and 10 months indicated that he seemed aware of actions around him but that he had poor eye contact and spoke mainly with jargon and screeches. Particular delay in social and emotional skills was noted. Sam’s parents, attuned to developmental concerns, attempted biological interventions often advocated for children with his profile, including a casein (gluten) free diet and vitamin supplements, without obvious benefit.

Sam’s mother, reflecting the reality of the family’s experience that is often missing from the typical clinical summaries, wrote, “No one thinks it might happen to them: to have a disabled child . . . to face the fact that our sweet little boy might never be able to have an education, hold a job, or have a family of his own.”

Test Results

At age 3 years and 3 months, after Sam had been attending speech and language therapy for some time, he underwent another speech and language evaluation. At that point records began to note that clinicians had suggested the possibility of Pervasive Developmental Disorder, or Autism Spectrum, symptoms. Verbalizations continued to consist primarily of jargon, rarely with communicative intent. He lacked eye contact, cooperative play, and age-appropriate imitation ability. His expressive and receptive language delays continued, and diagnostic consultation to consider an ASD was recommended. At age 3 years and 5 months, Sam was taken to a pediatric neuropsychologist involved in Autism treatment. At that time, he had limited social interaction, no gestural communication, and no peer interaction. His mother wrote, “He only spoke a few words. He did not say ‘mama’ or ‘dada’ or even ‘yes’ or ‘no.’ He could not follow simple directions or even respond routinely to his own name. He would spend hours flipping through the pages of an address book or phone book. He put up a barrier that was impossible for us to break through and we felt helpless and frustrated.” However, he also had improved modestly in responsiveness to others, was smiling more frequently, and, importantly, was demonstrating some possible affective reciprocity, such as smiling in response to facial expressions. His language continued to be characterized by much jargon and included stereotyped and scripted phrases, such as “mmm cake” in any context related to food or hunger. He lacked communicative intent, only infrequently communicating his desires as he typically attempted to fulfill them independently. He did not ask questions. Although he aligned objects frequently, his earlier agitation if the alignment was changed was subsiding as he developed greater ability to tolerate change. He sometimes walked in circles or spun his body.

Sam’s case, like so many early childhood ASD cases, raised the question of the utility of traditional neuropsychological assessment. His ability to respond to assessment sufficiently to produce a valid and useful profile, the cost/benefit ratio of evaluation particularly considering the impending time and financial cost of treatment, and administrative requirements in obtaining public funding assistance