

Chapter 4

Nonverbal Learning Disability from a Neurocognitive Perspective: A Guideline for Parents and Educators

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ABSTRACT

This chapter presents a framework for parents and educators to recognize the profile of strengths and weaknesses in individuals with nonverbal verbal disability (NLD) across different stages of development and in the context of environmental demands. To fully understand the profile and its impact, it is important to examine the NLD strengths in relation to the weaknesses. In this chapter, the relationship between the NLD strengths and weaknesses is examined within a model of different hemispheric processing systems. Looking at only one aspect of the profile—either the strengths or the weaknesses in isolation—can contribute to a misunderstanding of the NLD student and a fragmentation of services and intervention. In this chapter, the author describes how a comprehensive assessment can provide an important step toward clarifying and understanding the NLD profile. Finally, the chapter emphasizes the importance of an integrated approach to intervention and accommodations that will enable the student with NLD to move forward with increased awareness, acceptance, and independence.

INTRODUCTION

Despite considerable literature on the subject of nonverbal learning disabilities (NLDs), there remains some confusion and controversy surrounding the disorder on various levels. Part of this confusion may be a function of the disorder itself. As a unique pattern of strengths and weaknesses, NLD manifests differently across various developmental stages, and its presentation may depend upon the demands of the environment. Moreover, professionals from various disciplines disagree about the presentation, diagnosis, and intervention, and descriptions of the syndrome have primarily been based on clinical

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observation; to date, it is not included in the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*; American Psychiatric Association, 2013). There is also an overlap of symptoms with other disorders, which can contribute to the controversy over whether this constitutes a separate, unique disorder. At times, even the label evokes confusion, as parents may ask, “How can my child have a nonverbal learning disability when he talks constantly?” Because of these confounding factors, parents and educators are often at a loss about how to identify, understand, and treat children and adolescents with an NLD profile. However, without the proper support, accommodations, and interventions, students with this profile are at risk. In fact, Rourke (1989) found that having an NLD predisposes these individuals to adolescent and adult depression and suicide risk.

The purpose of this chapter is to clarify the unique pattern of NLD strengths and weaknesses as it presents across different stages of development. It also addresses how the demands of the environment can impact the presentation and how neuropsychological testing can clarify the profile and provide a baseline of cognitive ability, academic skills, and target behaviors. A comprehensive assessment of strengths and weaknesses can serve to guide intervention. In this regard, this paper also presents targeted interventions and suggestions for the school and home environment to facilitate achievement and integration of services.

BACKGROUND

NLD was first clinically described in 1967 by Johnson and Myklebust, who are considered pioneering figures in the field of learning disabilities. Myklebust began his career studying hearing loss and aphasia in children, whereas Johnson focused her research on the importance of symbols in the learning process. Together, they sought to differentiate various learning disorders, which they believed could be separated into distinct groups requiring different treatments. Regarding nonverbal learning, they noted,

Experience has clearly demonstrated that deficits in verbal learning are not the only deficiencies that are sustained through disturbances of brain functioning. There are the nonverbal, which are also highly significant to achievement and behavior. In fact, depending on the total circumstances, at least in some children this type of learning disability appears more consequential behaviorally than those affecting verbal abilities. (p. 17)

Johnson and Myklebust highlighted the social impact of these deficits and found that students with nonverbal learning problems exhibited disturbances in learning to tell time, understanding directions (east and west) and body orientation, interpreting the meaning of others’ behavior and facial expressions, developing a sense of music and rhythm, and deriving meaning from art.

From the early 1970s, Rourke and his colleagues made significant contributions to the understanding and conceptualization of NLD. Rourke conceptualized the NLD syndrome as a cluster of neuropsychological assets and deficits within a developmental framework (1989). In 1994, Rourke noted that students with NLD exhibited significant challenges in visual-spatial-organizational, tactile-perceptual, psychomotor, and nonverbal problem-solving skills in contrast to clear strengths in psycholinguistic skills such as rote verbal learning, regular phoneme–grapheme matching, verbal output regulation, and verbal classification. Rourke (1995) examined these strengths and weaknesses in three major domains of functioning: neuropsychological, academic, and social emotional/adaptation.

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