INTRODUCTION

Developmental dyslexia is defined as a specific disability in learning to read and to spell adequately despite at least normal intelligence, adequate instruction, socio-cultural opportunities, and the absence of sensory defects in vision and hearing. By this definition, instead of etiologically grounded criteria, the diagnosis rests upon a criterion of discrepancy between the reading performance expected from measures of general intelligence, and the observed reading performance—or, in other words, the discrepancy between how a child is expected to learn to read and how, in fact, she/he does. This definition is poorly descriptive because more than 100 years of scientific research have failed to provide a consistent account of the etiology of developmental dyslexia (Miles and Miles, 1999). Therefore, the diagnosis remains on the level of symptoms, instead of causing deficits.

One of the major symptoms of developmental dyslexia are reversal errors. Children confuse, for instance, letters which are horizontally or vertically symmetrical to each other or rotated (for example, p / q, b / d; p / d). These errors (static reversals) are normal in beginning readers (Hicks, 1981), but become very rare after developing reading practice. In dyslexics, however, they still occur even after years of reading experience. Orton (1925, 1928) postulated that these problems reflect the cardinal symptom of developmental dyslexia and that these confusion errors (stereosymbolia) are caused by a faulty development of cerebral dominance and sub-optimal inter-hemispheric communication.