Hyperlexia and Dyslexia: A Family Study

Jane M. Healy
Hathaway Brown School
Cleveland State University
Cleveland, Ohio

Dorothy M. Aram
Department of Pediatrics
Case Western Reserve University
Rainbow Babies and Childrens Hospital
Cleveland, Ohio

The condition of hyperlexia, often associated with autism, is a rare disorder in which children read words precociously but show little comprehension, markedly poor language, behavioral, and interpersonal skills. The relationship of hyperlexia and dyslexia has never been investigated, although suggestions have been made that the two conditions may be related. In light of current research on familial factors in autism, language disorder, dyslexia, and, recently, hyperlexia, this study investigated family histories of twelve hyperlexic children in regard to language, reading, writing, spelling, and other learning problems, handedness, and presence of allergies. Results suggest a distinct familial tendency to disorders of language, reading, writing, and spelling in male relatives, along with an unusually high instance of nonleft-handedness. Allergy information is inconclusive. Descriptive data are presented, and the relationship of symptomatology in hyperlexia and dyslexia is described and discussed. It is suggested that hyperlexia may represent a point of convergence of several genetically-linked developmental disorders.

Introduction

It appears paradoxical, in a publication of The Orton Dyslexia Society, to report on children who read too much and, in one sense at
least, too well. Hyperlexia is a paradox: reading that develops in advance of language, seemingly driven by needs apart from textual comprehension. We suggest, however, that this intriguing and somewhat obscure phenomenon may be strikingly relevant to research in dyslexia and may even serve to clarify the relationship of reading disability to a much broader spectrum of developmental disorders.

Review of Literature

Hyperlexia and the Reading Continuum

Fifteen years ago Katrina de Hirsch (1971) anticipated the topic of this paper in an article entitled, “Are Hyperlexics Dyslexic?” The term “hyperlexia” had just been proposed for word-reading skill which far outpaced intellectual potential in children with a variety of developmental anomalies (Silberberg and Silberberg 1967, 1968). Although such “splinter skills” had long been recognized in studies of autism, idiot savants, or “childhood psychosis” (Bergman and Escalona 1948; Cain 1969; Goodman 1972; Kanner and Eisenberg 1955; Scheerer, Rothman, and Goldstein 1945), no comprehensive studies had been conducted. The Silberbergs’ reports were followed by others (Elliott and Needleman 1976; Huttenlocher and Huttenlocher 1972; Mehegan and Dreifuss 1972) confirming the existence of an unusual group of children who read words at a level far in advance of comprehension. One of the most bizarre aspects of this word recognition was its development as early as two years of age, without instruction, and sometimes before expressive language. Reading was compulsive and often nonprosodic and repetitive. Yet, because of hyperlexic children’s extraordinary ability and apparent need to read anything they could find, hyperlexia and dyslexia were thought by many to be at opposite ends of a continuum of reading abilities in which children differed only quantitatively from more normal readers.

de Hirsch took issue with this view, asserting that “word calling is not reading,” and thus hyperlexics, “no matter how good their word-recognition skills, are ‘dyslexics’ ” (1971; p. 243). Linking persistent language deficits with reading comprehension problems, she concluded that “facility in word calling with inferior reading comprehension represents a special instance within the larger category of reading disability.” Benton (1978) agreed, although he had once viewed hyperlexia as “the opposite of dyslexia,” that he had come to regard it as “a particular form of dyslexia” (p. 457) and urged consideration of all levels of the reading skill hierarchy for defining parameters of dyslexia. Myklebust (1978) termed word calling without