

Stealth Dyslexia

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When you read the word dyslexia, what's the first thing that pops into your head? If you're like most people, you'll probably think of a reading disorder. That response is understandable, considering the way dyslexia is spoken or written of by many experts. For example, in 2003 the International Dyslexia Association defined dyslexia as: "a specific learning disability...characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities...problems in reading comprehension, and reduced reading experience..."

Yet reading difficulties are just one of the many neurologically-based manifestations of dyslexia. Dyslexia is also frequently associated with difficulties with handwriting, oral language, math, motor planning and coordination, organization, sequencing, orientation to time, focus and attention, right-left orientation, spatial perception, auditory and visual processing, eye movement control, and memory. In fact, in our practice, we often see children who are struggling academically due to difficulties that are clearly dyslexia-related, yet who show age appropriate--and in many cases even superior--reading skills. Because of their apparently strong reading skills, most of these children have never been identified as dyslexic, or given the help they needed to overcome either their academic difficulties.

We have found this to be an especially common problem among intellectually gifted children, because such children are able to use strong higher-order language skills to compensate for the low-level deficits in auditory and visual processing that cause the reading problems in dyslexia. As a result, they are able to read with relatively good comprehension. In fact, this is such a common presentation in our clinic, that we have given it it's own name: stealth dyslexia.

Children with stealth dyslexia share three things in common: 1) characteristic dyslexic difficulties with word processing and written output; 2) findings on neurological and neuropsychological testing consistent with the auditory, visual, language, and motor processing deficits characteristic of dyslexia; and, 3) reading skills that appear to fall within the normal or even superior range for children their age, at least on silent reading comprehension. In addition, many will show a family history of dyslexia, and/or a history of early reading difficulties greater than would be expected for a child with their obvious strengths in oral language. Let's look at the problems experienced by children with stealth dyslexia in a bit more detail.

The most academically disabling difficulty affecting children with stealth dyslexia is almost always dysgraphia, or difficulty writing by hand. Several factors often contribute to their difficulties with written output. First, they typically have the characteristic dyslexic difficulty turning words in their heads into signals capable of causing the motor system to form the appropriate letters needed to make words. They may lack the kinds of visual templates that can be used to form words, or be unable to translate auditory word images into the kinds of signals the motor system needs to form letters. Second, they may have spatial or sequential processing difficulties that make it difficult for them to remember how to form individual letters (resulting in oddly formed letters, reversals, inversions, and irregular spacing), or to remember what order letters or even sounds come in a word. These children are often especially hard for parents and teachers to understand, because they may have verbal IQs in the highly or profoundly gifted range and show every sign of verbal precocity, yet be unable even to write the alphabet--even as teenagers. Third, dyslexic children may have difficulties with sensory-motor dyspraxia. Motor

coordination problems are common in dyslexia, and may cause difficulties with the manual aspects of handwriting even for children who are trying to copy directly from examples of printed words. Often these children experience the extreme frustration of knowing what words they want to write, while being unable to get their fingers to make the proper motions. Finally, dyslexic children often have difficulties of visual processing that can contribute to poor hand-eye coordination, or difficulty using visual feedback to guide their writing.

The severe handwriting impairment associated with these deficits produces one of stealth dyslexia's most noticeable manifestations: the characteristically enormous gap between oral and written expression. Even extremely precocious adolescents with outstanding oral language skills, remarkable knowledge bases, and extremely lively minds can produce written documents of such brevity and simplicity that they look as if they had been written by a struggling third grader. The psychic trauma that can result from this gap between aptitude and output is impossible to exaggerate.

Another tip-off to the presence of stealth dyslexia is the presence of spelling difficulties in a child's written output that are far out of character with either their general language, working memory, or attention skills. While these children are sometimes able to score within age norms on multiple-choice tests of spelling recognition, or even on weekly tests of spelling words that study carefully for, they essentially always show significant and surprising deficits when they try to spell words from memory.

The dyslexic deficits in handwriting and spelling tend to be more persistent and resistant to treatment than the reading deficits. It's important that children with dyslexic dysgraphia be identified as early as possible so that they can be given appropriate handwriting interventions, and so that they can begin as early as possible to develop proficiency in keyboarding. Keyboarding should become their primary means of written expression for as much schoolwork as possible--in many cases, for math as well as language output.

In addition to difficulties with written expression and spelling, children with stealth dyslexia often show persistent, though subtle, difficulties with reading. Despite the appearance of age-appropriate reading comprehension on routine classroom assignments or even standardized tests, careful examination of oral reading skills almost always reveals persistent difficulties with word-for-word reading. Though often subtle, these deficits, which usually result in subtle word substitutions or word skips, can result in significant functional problems, especially on tests. We frequently see children who consistently show good comprehension reading lengthy passages or even long books, yet who significantly underperform or even fail written tests of reading comprehension because they have difficulty reading short test questions or multiple choice answers.

This seemingly paradoxical difficulty reading short passages can be better understood by considering the nature of the reading difficulties children with stealth dyslexia usually have. As we've mentioned, these children typically show difficulties on the word-by-word reading level, including word skips or occasionally substitutions due to misreading. When they read longer passages, these children are often able to use their excellent higher-order language skills to fill in or correct errors in word reading, drawing on the redundancy and contextual cues that are usually available in longer passages. However, as reading passages get shorter, they contain fewer contextual cues, less redundant content, and often, more condensed syntax. As a result, there will be fewer means of correcting individual word errors, so the likelihood of errors actually increases as passages decrease in length. Unfortunately, there are few types

of writing that are more brief, non-contextual, low-redundancy, and condensed than test questions or multiple-choice answers. On such passages, a single missed word--especially conditionals like "not" or "except," or comparatives like "before" or "since"--can yield catastrophic results, and there will be few cues available to show that an error has been made. As a result, children with stealth dyslexia often make "silly mistakes," responding in ways quite different from the way they would have answered had they correctly interpreted the question or answer choices. The same kinds of problems are often seen in math work, as well.

Although these mistakes typically result in underperformance, the 2e child with stealth dyslexia may be able to compensate well enough to avoid actual failure, especially during the early elementary years. As a result, they may not be correctly identified as having dyslexia or any other learning challenge, and appropriate interventions may not be provided. This frustrating pattern will be all too familiar to anyone familiar with 2e children: impairments severe enough to significantly impair learning and school performance, but not severe enough to be recognized or to qualify for appropriate services or accommodations. Like many 2e children, gifted stealth dyslexics often "fall between the cracks," so that the nature of their problem goes unrecognized.

Typically, the children we see with stealth dyslexia struggle through elementary school performing well below their potential, often making superhuman efforts just to keep up. When they meet the heavier writing demands (and sometimes also the more complicated reading assignments) in middle and high school, they frequently find that they are no longer able to keep up. A downward spiral of failure and despair is often the result. This outcome is completely unnecessary. With early identification and appropriate interventions, these children can be equipped to gain all the knowledge and success of which their powerful minds make them capable.