

# Stealth dyslexia

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This article, written by Brock and Fernet Eide, discusses the concept of hidden dyslexia, which can be a common problem among intellectually gifted children.

When you read the word dyslexia, what's the first thing that pops into your head? Probably you 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. 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 their academic difficulties.

This problem is especially common, we have found, among intellectually gifted children. The reason is that these 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 situation is so common in our clinic that we have given it its own name: stealth dyslexia.

What children with stealth dyslexia have in common are:

- Characteristic dyslexic difficulties with word processing and written output
- Findings on neurological and neuropsychological testing consistent with the auditory, visual, language, and motor processing deficits characteristic of dyslexia
- 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 of these children have 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 that cause the motor system to form the letters needed to make words. Some reasons for their difficulty can be:

- They lack the kinds of visual templates that can be used to form words.
- They are 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 do the following:

- Remember how to form individual letters (resulting in oddly formed letters, reversals, inversions, and irregular spacing),
- Remember the sequence of letters or even sounds 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, these same children might be unable to write the alphabet – even as teenagers.

Third, dyslexic children may have difficulties with sensory-motor dyspraxia, or motor coordination problems. These problems, common in dyslexia, 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 visual processing difficulties. These problems 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'd 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 spelling errors in children's written output that are far out of character with their general language, working memory, or attention skills. While they are sometimes able to score within age norms on multiple-choice tests of spelling recognition, or even on weekly tests of spelling words that they study carefully for, these children 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. These deficits usually result in subtle word substitutions or word skips; and they 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 under-perform 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 mentioned earlier, these children typically show difficulties with word-by-word reading, skipping words occasionally and making word substitutions. When reading longer passages, they can often 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, short passages contain fewer contextual cues. They have less redundant content, and they often have more condensed syntax, providing fewer means of correcting individual word errors. Therefore, the likelihood of errors 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,” giving answers quite different from those they would have given if they had correctly interpreted the question or answer choices. The same kinds of problems often occur in math work, as well.

Although these mistakes typically result in underperformance, 2e children 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 may not receive the appropriate interventions.

This frustrating pattern is all too familiar to anyone familiar with 2e children. They have 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 and often making superhuman efforts just to keep up. When they meet the heavier writing demands (as well as more complicated reading assignments) in middle and high school, they frequently find themselves unable 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.

### **More than Just Reading Problems**

Dyslexia can involve more than just reading problems. Often, it's associated with difficulties in these areas as well:

- Handwriting
- Oral language
- Math
- Motor planning & coordination
- Organization
- Sequencing
- Orientation to time
- Focus & attention
- Right-left orientation
- Spatial perception
- Auditory & visual processing
- Eye movement control
- Memory

*Brock and Fernette Eide are physicians from Edmonds, WA. They are the Professional Advisory Committee for SENG (Supporting Emotional Needs of the Gifted) and their book, *The Mislabeled Child*, will be published next summer. Visit their website and blog [here](#).*