

The Dyslexia-Stress-Anxiety Connection

Implications for Academic Performance and Social Interactions

What is stress?

Stress is the reaction of the body and brain to situations that put us in harm's way. The stressor may be a physical threat (e.g., a baseball coming quickly toward you) or a psychological threat (e.g., a worry or fear that you will make a mistake delivering your lines in a play or write a passage that won't make sense to the reader). Stress, or more specifically, the stress response, is our body's attempt to keep us safe from harm. It's a biological and psychological response. When we're under stress, the chemistry of our body and our brain (and, therefore, our thinking) changes. A part of the brain called the *amygdala* does a great job learning what's dangerous, and it makes a connection between certain situations and negative outcomes.

How can stress be good and bad?

All human and non-human animals have the built-in capacity to react to stress. You may have heard of a "fight or flight" response. This means that when faced with a threat, we have two basic ways of protecting ourselves. We can run away (flee) or stand firm and try to overcome or subdue the threat (fight). When we have a sense that we can control or influence the outcome of a stressful event, the stress reaction works to our advantage and gets our body and brain ready to take on the challenge. That's *good* stress; at the most primitive level, it keeps us alive. It also allows us to return to a feeling of comfort and safety after we have been thrown off balance by some challenge.

On the other hand, *bad* stress occurs in a situation in which we feel we have little or no control of the outcome. We have a sense that no matter what we do, we'll be unable to make the stressor go away. Body and brain chemistry become over-reactive and get all out of balance. When that

happens, it can give rise to another protective mechanism, to "freeze" (like a "deer in the headlights".) We can freeze physically (e.g., become immobilized), or we can freeze mentally (e.g., "shut down.") In these situations, the stressor wins and we lose because we're incapacitated by the perceived threat.

How does good and bad stress work with dyslexia?

Individuals with dyslexia are confronted regularly by tasks that are, either in reality or in their perception, extremely difficult for them. These tasks might be reading, spelling, or math. If they have experienced success at mastering this kind of task in the past, good stress helps them face the challenge with a sense of confidence, based on the belief that "I can do this kind of task." If, on the other hand, someone has met with repeated failure when attempting this or a similar task in the past, his or her body and brain may be working together to send out a chemical warning system that gets translated as "*This is going to be way too difficult for you! Retreat! Retreat!*") That's bad stress in action.

And remember, perception *is* everything! It doesn't matter if a teacher, a friend, or a spouse believes that you can do something; it's that you think you can do it that matters.

What is anxiety?

Anxiety comes in many forms. It can be situational (that is, specific to one kind or class of worry, like traveling or being in social situations). Individuals with dyslexia may experience marked anxiety in situations in which they feel they will make mistakes, be ridiculed, or made to feel foolish in front of others. Severe anxiety or fears are known as phobias.

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When the anxiety is specific to or triggered by the demands of being with or interacting with people, and is characterized by a strong fear of being judged by others and of being embarrassed, it is known as social anxiety disorder (or social phobia). This fear can be so intense that it gets in the way of going to work or school or doing everyday activities. Children and adults with social phobia may worry about social events for weeks before they happen. For some people, social phobia is specific to certain situations, while others may feel anxious in a variety of social situations.

Anxiety can also be generalized (that is, a kind of free-floating sense of worry or impending trouble that doesn't seem to be specific to one trigger or event). In its more serious form, this is considered a psychiatric disorder known as generalized anxiety disorder (GAD). According to the National Institutes of Mental Health website http://www.nimh.nih.gov/health/topics/generalize_d-anxiety-disorder-gad/index.shtml:

GAD is diagnosed when a person worries excessively about a variety of everyday problems for at least 6 months. Generalized anxiety disorders affect about 3.1% American adults age 18 years and older (about 18%) in a given year, causing them to be filled with fearfulness and uncertainty. The average age of onset is 31 years old.

How is anxiety different from stress?

Simply put, *anxiety* is a state of worry about what *might be*—as compared to stress, which is a reaction to what *is*. Both stress and anxiety trigger the same chemical reactions in the brain, which does a really good job remembering negative experiences. If you worry all the time about something bad happening to you, that puts you in a state of chronic stress. Individuals with dyslexia worry about reading, writing, and arithmetic much of the time. The irony is, the more they master, the more work they get. It's an unending cycle.

What's the connection to dyslexia?

Stress and anxiety increase when we're in situations over which we have little or no control (a car going off the road, tripping on the stairs, reading in public). All people, young and old, can experience overwhelming stress and exhibit signs of anxiety, but children, adolescents, and adults with dyslexia are particularly vulnerable. That's because many individuals do not fully understand the nature of their learning disability, and as a result, tend to blame themselves for their own difficulties. Years of self-doubt and self-recrimination may erode a person's self-esteem, making them less able to tolerate the challenges of school, work, or social interactions and more stressed and anxious.

Many individuals with dyslexia have experienced years of frustration and limited success, despite countless hours spent in special programs or working with specialists. Their progress may have been agonizingly slow and frustrating, rendering them emotionally fragile and vulnerable. Some have been subjected to excessive pressure to succeed (or excel) without the proper support or training. Others have been continuously compared to siblings, classmates, or co-workers, making them embarrassed, cautious, and defensive.

Individuals with dyslexia may have learned that being in the company of others places them at risk for making public mistakes and the inevitable negative reactions that may ensue. It makes sense, then, that many people with dyslexia have become withdrawn, sought the company of younger people, or become social isolates.

How can individuals with dyslexia move from distress to DE-STRESS?

The DE-STRESS model that follows is a step-by-step guide for addressing stress, anxiety, and dyslexia.

- **Define:** Professionals working with the person need to analyze and understand the

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way dyslexia presents itself in that individual.

- **Educate:** Based on the information gleaned by the professionals above, the child or adult needs to be taught how dyslexia has an impact on his or her performance in school, workplace, or social situations.
- **Speculate:** This step involves encouraging individuals with dyslexia to look ahead and anticipate the problems they might encounter because of their condition as they face new challenges.
- **Teach:** It's important to teach children, adolescents, and adults developmentally appropriate strategies, techniques, and approaches that will maximize success and minimize frustration and failure. This involves actively teaching people how to recognize and manage stress, the skills of honest self-appraisal, and the ability to learn from and repair errors.
- **Reduce the Threat:** Educators and others involved need to create learning and social environments that reduce, remove, or neutralize the risk. This means giving students the chance to practice newly learned skills in a safe place. It also involves teaching people with dyslexia how to recognize and deactivate "stress triggers."
- **Exercise:** Regular and vigorous physical activity is known to enhance brainpower and reduce stress. So it is important to build in opportunities for exercise. This step also involves encouraging the person to drink plenty of water and eat a healthy diet.
- **Success:** Children and adults need abundant opportunities to display mastery and experience success. Providing these opportunities gives individuals with dyslexia a chance to learn how to replace

the language of self-doubt with the language of success.

- **Strategize:** The child or adult should be encouraged to use what he or she has learned about minimizing and managing stress, and the relationship between stress and dyslexia, to plan for a future in which continued success is likely.

A little bit of stress is a good thing; it keeps us on our toes and gets us ready for the challenges that are a normal and helpful part of living in a complex world. Yoga, mindfulness activities, meditation, biofeedback, cognitive behavioral therapy (CBT), medication and exercise are among the many ways that individuals (with and without dyslexia) can conquer excessive or debilitating stress. For the individual with dyslexia, effectively managing and controlling stress must also involve learning more about the nature of the specific learning disability. Gaining an understanding of the daily impact of dyslexia and learning how to work through or around the dyslexia to gain a better sense of control over the environment, is the key to reducing stress and achieving greater success.

Competence instills confidence and competence leads to success. When children, adolescents, and adults are able to develop a sense of mastery over their environments (school, work, and social interactions), they develop a feeling of being in control of their own destiny. Control through competence is the best way to eradicate stress and anxiety.

Suggested Readings

- Brooks, R., & Goldstein, S. (2007). Understanding and managing children's classroom behavior: Creating sustainable, resilient classrooms. New York: Wiley.
- Minahan, J., & Rappaport, N. (2012). The Behavior code: A practical guide to understanding and teaching the most challenging students. Cambridge: Harvard Education Press.

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Suggested Readings (continued)

- Ratey, J. (2008). Spark: The revolutionary new science of exercise and the brain. New York: Little, Brown.
- Schultz, J. (2011). Nowhere to hide: Why kids with ADHD and LD hate school and what we can do about it. San Francisco: Jossey-Bass.

The International Dyslexia Association (IDA) thanks Jerome J. Schultz, Ph.D., for his assistance in the preparation of this fact sheet. Dr. Schultz is a clinical neuropsychologist and lecturer on psychology in the Department of Psychiatry at Harvard Medical School.