Research Into Dyslexia Reveals Special Gifts and Talents

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When you hear the word "dyslexia," chances are you think "learning disability." Most people don't realize that dyslexia is associated with a special set of perceptual skills – some of which offer distinct advantages. A recent article in the New York Times aims to promote greater awareness of the upside of dyslexia.

Dyslexia is still a very poorly understood disorder, but recent research at MIT shows that typical readers are better at focusing on words in the center of their field of vision. Readers with dyslexia, however, have stronger and more accurate peripheral vision.

The study, spearheaded by Gadi Geiger and Jerome Lettvin, used a mechanical shutter to flash a row of letters before test subjects, with the letters extending from the center of the subject's field of vision outward. While typical readers were able to identify the letters in the center, those with dyslexia were able to identify the letters at the very edges of the row.

What's interesting about this study and related research is that these skills seem to be either/or. A person is only good at focusing on one or the other. Being able to focus on the details in the center of a page is an asset in learning to read, but it also means that most people are fairly weak at recognizing broader features and patterns outside of that small area of focus. This fits well with what some dyslexia advocates have been saying for years – that dyslexics are intuitive, big-picture thinkers who are more aware of their surroundings.

Not only is their peripheral vision stronger, it seems that their ability to view an entire scene as a whole, rather than focusing on the details, can help them spot errors faster. In a University of Wisconsin study, people with dyslexia identified "impossible pictures" faster – they were able to spot the unrealistic elements in drawings in the style of M.C. Escher, which rely on optical illusions to create physically impossible scenes.

It even turns out that students with dyslexia have shown a superior ability to understand and process visual information in certain contexts. In one study, dyslexic students were able to see the images in photographs which had been heavily blurred, while non-dyslexic students could not. In some situations, it turns out, dyslexic learners actually have the advantage.

This research represents some substantial steps in the right direction. Better understanding what dyslexia is, and how it works, is crucial to helping struggling readers learn how to overcome their academic handicaps and make the best use of the unique talents.

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