What is dyslexia?

Take a moment to read the following. … How was that? … Frustrating? Slow? … What were the sentences about? They are actually a simulation of the experience of dyslexia designed to make you decode each word. Those with dyslexia experience that laborious pace every time they read. When most people think of dyslexia they think of seeing letters and words backwards, like seeing ‘b’ as ‘d’ and vice versa. Or they might think that people with dyslexia see ‘saw’ as ‘was’.

The truth is people with dyslexia see things the same way as everyone else. Dyslexia is caused by phonological processing problem, meaning (that) people affected by it have trouble not with seeing language but with manipulating it.

For example, if you heard the word ‘cat’ and then someone asked you “Remove the ‘c’.” What word would you have left? ‘At’. This can be difficult for those with dyslexia. Given the word in isolation, like ‘fantastic’, students with dyslexia need to break the word into parts to read it: fan-tas-tic. Time spent decoding (it) makes it hard to keep up with pairs and gain sufficient comprehension. Spelling words phonetically like ‘s-t-i-k’ for ‘stick’ and ‘f-r-e-n-s’ for ‘friends’ is also common.

These difficulties are more widespread and varied than commonly imagined. Dyslexia affects up to one in five people. It occurs on a continuum. One person might have mild dyslexia while the next person has a profound case of it. Dyslexia also runs in families. It is common to see one family member who has trouble spelling, while another family member has severe difficulty decoding even one-syllable words like ‘catch’.

The continuum and distribution of dyslexia suggests a broader principle to bear in mind as we look at how the brains of those with dyslexia process language. Neurodiversity is the idea that because all our brains show differences in structure and function, we should not be so quick to label every deviation from ‘the norm’ as a pathological disorder, or dismiss people living with these variations as ‘defective’.

People with neurobiological variations like dyslexia, including such creative and inventive individuals as Picasso, Muhammad Ali, Whoopi Goldberg, Steven Spielberg and Cher, clearly have every capacity to be brilliant and successful in life.

So, here is a special way the brains of those with dyslexia work. The brain is divided into two hemispheres. The left hemisphere is generally in charge of language and, ultimately, reading, while the right typically handles spatial activities. FMRI studies have found that the brains of those with dyslexia rely more on the right hemisphere and frontal lobe than the brains of those without it. This means, when they read a word, it takes a longer trip through their brains and can get delayed in the frontal lobe. Because of this neurobiological glitch they read with more difficulty. But those with dyslexia can physically change their brains and improve their reading. With an intensive, multi-sensory intervention that breaks the language down and teaches the reader to decode based on syllable type and spelling rules, the brains of those with dyslexia begin using the left hemisphere more efficiently while reading and their reading improves. The intervention works because it locates dyslexia appropriately as a functional variation in the brain which naturally shows all sorts of variations from one person to another. Neurodiversity emphasizes this spectrum of brain function in all humans and suggests that to better understand the perspectives of those around us. We should try not only to see the world through their eyes but understand it through their brains.