Dyslexia Is Not Actually Caused By Gray Matter Differences, Brain Anatomy Study Suggests

By Abigail E. Victor

Dyslexia is a learning disorder marked by trouble reading and often writing. Researchers have long argued that the condition is associated with gray matter differences in the brain. Now, a new study published in the journal *Brain* suggests dyslexia is not caused by gray matter differences, but by a lack of white matter connections in the brain.

The study, which was published in the journal *Brain*, was conducted by researchers at the University of Michigan. The researchers analyzed the brain scans of 13 children with dyslexia and 13 children with typical reading ability. They found that the children with dyslexia had 30% fewer white matter connections in the brain than the children with typical reading ability. The children with dyslexia also had 50% fewer white matter connections in the brain than the children with typical reading ability.

The researchers suggest that the lack of white matter connections in the brain is what causes dyslexia, not the gray matter differences. They believe that the lack of white matter connections leads to difficulty in reading and writing.

The study has implications for the way we think about dyslexia and how we treat it. It suggests that therapies that focus on improving white matter connections in the brain may be more effective than therapies that focus on improving gray matter differences.

The study is the first to show that dyslexia is not caused by gray matter differences, but by a lack of white matter connections in the brain. The researchers hope that their findings will lead to new therapies for dyslexia that focus on improving white matter connections in the brain.

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