

Tackling dyslexia before kids learn to read

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For children with dyslexia, the trouble begins even before they start reading and for reasons that don't necessarily reflect other language skills. That's according to a report published online on April 5 in *Current Biology*, that for the first time reveals a causal connection between early problems with visual attention and a later diagnosis of dyslexia.

"[Visual attention](#) deficits are surprisingly way more predictive of future reading disorders than are [language abilities](#) at the prereading stage," said Andrea Facchetti of the University of Padua in Italy.

The researchers argue that the discovery not only closes a long-lasting debate on the causes of dyslexia but also opens the way to a new approach for early identification and interventions for the 10 percent of children for whom reading is extremely difficult.

The researchers studied Italian-speaking children for a period of three years, from the time they were prereading [kindergarteners](#) until they entered second grade. Facchetti's team, including Sandro Franceschini, Simone Gori, Milena Ruffino, and Katia Pedrolli, assessed prereaders for visual spatial attention—the ability to filter relevant versus irrelevant information—through tests that asked them to pick out specific symbols amid distractions. The children also took tests on syllable identification, verbal short-term memory, and rapid color naming, followed over the next two years by measures of reading.

Those test results showed that kids who initially had trouble with visual attention were also the ones to later struggle in reading.

"This is a radical change to the theoretical framework explaining dyslexia," Facoetti said. "It forces us to rewrite what is known about the disorder and to change rehabilitation treatments in order to reduce its impact."

He says that simple visual-attention tasks should improve the early identification of children at risk for dyslexia. "Because recent studies show that specific prereading programs can improve reading abilities, children at risk for dyslexia could be treated with preventive remediation programs of visual spatial attention before they learn to read."

More information: Franceschini et al.: "A Causal Link between Visual Spatial Attention and Reading Acquisition." *Current Biology*, May 8, 2012 print issue. [DOI:10.1016/j.cub.2012.03.013](https://doi.org/10.1016/j.cub.2012.03.013)

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