Dyslexics' main problem is phonetics

A youngster's recognition of the sounds of letters and words is closely related to how well the child can read.

That is one of the chief results after a new comprehensive meta-analysis of the findings from more than 235 studies on reading disorders.

Dyslexia and milder versions of the disorder have been thoroughly examined for the past three decades.

Researcher Monica Melby-Lervåg at the Department of Special Needs Education, University of Oslo, says the results in these studies aren’t in full accord. So she and her colleagues sought to clear up a few things.

Their review suggests that adequate skills in associating sounds with the written symbols we use for them may be a prerequisite for learning to read effectively. This finding seems to be universal across different alphabetic languages.

Sounds and letters

Melby-Lervåg says weak phonetic skills comprise the primary stumbling block for children with dyslexia. This is the root of their other language learning difficulties.

Words can be broken down to test a child’s phonetic awareness, which means testing how conscious he or she is about the sound of words and letters.

“If I say the word ‘cat’, is the child able to figure out that it starts with a k-sound and ends with a t-sound? Most children will pick this up automatically, but for children with dyslexia it’s difficult to store and remember this knowledge,” Melby-Lervåg says.

The consequences of being a poor reader are often serious for children’s formal education, and thus impacting their professional and personal lives. For two to five per cent of Norwegians, the difficulties are serious enough to merit a dyslexia diagnosis. Others have milder challenges that nonetheless interfere with their reading development.

These children are struggling to understand the connection between written language and how the letters and words are supposed to sound. Learning to read involves cracking this code.

Dyslexia is about language, not memory

Melby-Lervåg and her colleagues found that dyslexic children’s most fundamental challenge is about language problems rather than memory problems, as some earlier studies have suggested.

“There has been a discussion about whether language problems can be linked to short-term memory problems, but we haven’t found any support for that in our study,” Melby-Lervåg says.
The misconception is explained by how dyslexic children often perform poorly on short-term memory tasks that involve remembering linguistic information.

They do poorly because they struggle to form cognitive representations of spoken words and letters. Dyslexic children’s performance on such tasks is in other words about language skills, and not memory skills.

**Specialised training works**

Melby-Lervåg and colleagues argue that any model of reading development needs to acknowledge the importance of phonemic representations when we learn to read.

The researchers found that children with dyslexia show a large deficit on phonemic awareness tasks, and that this very problem is effectively ameliorated with training in phonemic awareness, with tasks such as the ‘cat’ challenge mentioned above.

Melby-Lervåg says it’s important to start early.

“When children first start learning to read in school, some pupils will have more problems than others,” Melby-Lervåg says.

These children should be helped as early as possible. Instead of waiting until these kids turn eight or nine years old, she says, one should intervene when they’re in first or second grade, which means they’re six or seven.

**Time to move on**

After reviewing through more than 200 studies, Melby-Lervåg says it is time for a change in direction for those researching dyslexia.

She thinks there is no need for more studies that compare differences between children with and without dyslexia at any given point in time.

“There’s so much evidence from past studies on this, and we know a lot about how children learn to read.”

Melby-Lervåg asserts that researchers should now focus on interventions and effective treatment.

“It’s time to move on,” she concludes.