

and considered as potential predictors of their reading performance one year later. Structural equation models showed that pre-reading VA span accounts for a significant and proper amount of variance in reading one year later, after controlling for the other predictive factors. Our findings show that VA span abilities in prereaders predict future reading acquisition, thus suggesting a causal link between poor VA span and poor reading outcome in developmental dyslexia.

◆ **The magnocellular theory of visual dyslexia**

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Of the 10% of children who find it unexpectedly difficult to learn to read fluently despite normal intelligence, health and education (developmental dyslexia), many have impaired development of visual magnocellular neurones. This impairs their ability to see letters and words properly. Magnocellular neurones are responsible for directing visual attention and eye movements during reading, hence for accurately sequencing letters. This new understanding of the visual processing problems in dyslexia has enabled the development of novel and effective remedial treatments, such as coloured filters and fixation training. Impaired development of magnocells is partly genetic, partly associated with autoimmunity and aggravated by lack of essential micronutrients, in particular omega-3 fatty acids derived from oily fish.

◆ **Spatial attention and learning to read: Evidence from a 3-years longitudinal study**

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Developmental dyslexia is a neurobiological disorder that affects about 10% of the children. Although impaired auditory and speech sound processing is widely assumed to characterize dyslexic individuals, emerging evidence suggests that dyslexia could arise from a more basic cross-modal letter-to-speech sound integration deficit. Nevertheless, letters must be precisely selected from irrelevant and cluttering letters by rapid shifting of visual attention before the correct letter-to-speech sound integration is applied. Thus, is prereading visual parietal-attention functioning able to explain future reading emergence and development? The present 3-years longitudinal study shows that prereading attentional shifting ability—assessed by serial search performance and spatial cueing facilitation—captures not only future basis of reading skills (ie, rapid letter naming and pseudoword length effect) but also words and text reading abilities in grades 1 and 2 after controlling for speech-sound processing as well as nonalphabetic crossmodal mapping. Our results provide evidence that visual spatial attention efficiency in preschoolers specifically predicts future reading acquisition, suggesting new approaches for early identification and a more efficient prevention of developmental dyslexia.