Dyslexia: the link with visual deficits.

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Abstract

Some research reports suggest that visual anomalies may have a causative role in dyslexia, and on this basis certain forms of therapy have been proposed. Recently, we have published the initial results of a matched group study which found dyslexia to be associated with binocular instability, reduced amplitude of accommodation, and reduced contrast sensitivity for both low spatial frequencies and uniform field flicker. The binocular instability was best identified by measuring the vergence amplitude: a modified Dunlop test failed to differentiate reliably between the two groups. Here, we report a significant correlation between flicker threshold and binocular instability, thus linking sensory and motor visual correlates of dyslexia. We also present further new analyses on the interaction between optometric variables and the psychometric measurement of coding skills. The results of these analyses disagree with a recent claim that binocular vision anomalies might cause poor performance at coding tasks. Our studies indicate that visual characteristics are not the major aetiological factors in specific reading difficulty.