Visual exploration of non-verbal material by dyslexic children.

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Abstract
Eye movements were recorded from fifteen matched pairs of dyslexic children and normal readers (boys) during a field of search task. The task required the subjects to locate a target that matched a central standard. The relative familiarity of elements in the array, the array density, and the tilt of the elements with respect to the central standard were varied. Results showed that the dyslexic children took significantly longer than controls to find the matching target when the elements in the array were tilted, and somewhat (though not significantly) longer when the material was unfamiliar. Within the dyslexic group, search durations were related to graphomotor skills and to WRAT reading level. Two explanations for the results were proposed: (1) dyslexic children may have a specific difficulty in processing directionally confusing information; (2) some dyslexic children may have a pervasive difficulty in motoric gating of visual information.

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