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Dyslexia and visual-spatial talents: compensation vs deficit model.

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Abstract

There are both theoretical and empirical reasons to support the hypothesis that dyslexia is associated with enhancement of right-hemisphere, visual-spatial skills. However, the neurological evidence is neutral with respect to whether dyslexic visual-spatial abilities should be superior (a compensation model) or inferior (a deficit model). In three studies we tested the hypothesis that dyslexia is associated with superior visual-spatial skills. Individuals with dyslexia not only failed to show superiority on a range of visual-spatial tasks, even when tasks were presented without time constraints, but also demonstrated a deficit on many tasks. Whereas we found attentional problems associated with dyslexia, these did not explain our findings. Results are discussed in terms of the apparent conflict between the failure to find any visual-spatial talent associated with dyslexia and the fact that dyslexia is overrepresented in certain visual-spatial professions.

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