

A developmental unilateral neglect?

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Unilateral spatial neglect, a tendency to ignore information from one side of space, is a striking and surprisingly common consequence of stroke in adulthood. The high frequency of the disorder, together with the wide variety of brain structures associated with the condition, suggest that our capacity to allocate attention within space is based on widely distributed and vulnerable networks. Recovery from frank neglect tends to be quite rapid for most patients. This process is, however, sharply asymmetric and chronic forms of neglect are overwhelmingly associated with right hemisphere lesions and affect left space. In accounting for this pattern, it has been suggested that other right hemisphere deficits, particularly in non-spatial attention/executive function, may form the setting conditions that allow neglect to persist. In particular it has been noted that increasing patients' alertness using stimulants or loud tones can cause temporary reductions in neglect, whilst sedative medication has the opposite effect. Here we address whether a relationship between "frontal" non-spatial attentional difficulties and biased spatial awareness maybe apparent in children. Two case studies are presented showing that severe neglect of left space can occur without sudden onset or obvious brain lesion and in the context of average or above average IQ. In both cases the children reached diagnostic criteria for attention deficit hyperactivity disorder. Group studies are then used to show that this relationship extends into the normal child population. The clinical implications of such biases are discussed together with evidence suggesting that rehabilitative strategies developed with adults with neglect may be effective with children.

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