

[Pavlov J Biol Sci.](#) 1982 Jul-Sep;17(3):150-7.

Autonomic responsivity during visual search of hyperactive and reading-disabled children.

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Abstract

Heart rate and skin conductance measures, recorded during a visual search task, were compared for hyperactive, reading-disabled, hyperactive reading-disabled, and control elementary school boys. As shown in past work, basal autonomic levels did not statistically differentiate groups. In all groups, heart rate levels increased with task complexity, but more so on reward than on nonreward trials. In the intertrial interval, heart rate decelerated consistently when subjects were anticipating stimuli associated with reward, but when reward was uncertain, heart rate accelerated slightly or stayed the same. Control subjects exhibited anticipatory heart rate deceleration more consistently than did clinical subjects, especially the solely hyperactive ones. Skin conductance levels first decreased, then rose as task complexity increased, but the groups did not differ on this measure. A conditioning model is outlined to explain directional changes in heart rate.

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