Evidence for increased behavioral control by punishment in children with attention-deficit hyperactivity disorder

E. Furukawa, B. Alsop, P. Sowerby, S. Jensen, G. Tripp

Journal of Child Psychology and Psychiatry
DOI: 10.1111/jcpp.12635

Abstract

Background
The behavioral sensitivity of children with ADHD to punishment has received limited theoretical and experimental attention. This study evaluated the effects of punishment on the response allocation of children with ADHD and typically developing children.

Method
Two hundred and ten children, 145 diagnosed with ADHD, completed an operant task in which they chose between playing two simultaneously available games. Reward was arranged symmetrically across the games under concurrent variable interval schedules. Asymmetric punishment schedules were superimposed; responses on one game were punished four times as often as responses on the other.

Results
Both groups allocated more of their responses to the less frequently punished alternative. Response bias increased significantly in the ADHD group during later trials, resulting in missed reward trials and reduced earnings.

Conclusions
Punishment exerted greater control over the response allocation of children with ADHD with increased time on task. Children with ADHD appear more sensitive to the cumulative effects of punishment than typically developing children.