Childhood ADHD and Delayed Reinforcement - A Direct Comparison of Performance on Hypothetical and Real-Time Delay Tasks

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Journal of Attention Disorders (July, 2016)
doi: 10.1177/1087054716661231

Abstract

Objective:
Individuals with ADHD have been shown to prefer smaller sooner over larger later rewards. This has been explained in terms of abnormally steeper discounting of the value of delayed reinforcers. Evidence for this comes from different experimental paradigms. In some, participants experience delay in the laboratory (real-time delay tasks; R-TD), in others they imagine the delay to reinforcers (hypothetical delay tasks; HD).

Method:
We directly contrasted the performance of 7- to 12-year-old children with ADHD (n = 23) and matched controls (n = 23) on R-TD and HD tasks with monetary rewards.

Results:
Children with ADHD displayed steeper temporal discounting on the R-TD, but not the HD tasks.

Conclusion:
These findings suggest that the experience of waiting prior to the delivery of rewards is an important determinant of heightened temporal discounting in ADHD—a finding consistent with models that emphasize the aversive nature of delay for children.