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Proceedings of the Annual Meeting of the Cognitive Science Society

Title

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Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 44(44)

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Publication Date

2022

Peer reviewed

One-second Boosting: A Simple and Cost-effective Intervention that Promotes the Optimal Allocation of Cognitive Resources

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Abstract

Making rational judgments is not always easy. Given that aggregation of the distributed labor force through Internet has become common, a simple and cost-effective solution is needed to improve worker performance. We tested the hypothesis that enforcing a certain decision time boosts job performance by not allowing workers to provide answers within a certain short time after presenting the task. We used the binary judgment tasks, and job performance with various enforced decision times were compared. Two behavioral experiments with physicians ($N = 628$) demonstrated that job performance was improved by enforcing a one-second decision time; this did not affect the cognitive load of physicians. Furthermore, it was suggested that adding a one-second decision time induced the optimal trade-off between the worker's performance and cognitive load. Our results show that focusing on resource rationality could lead to simple and cost-effective solutions to real-world problems by boosting workers' job performance.